

CLINICAL MEDICINE AND SURGERY

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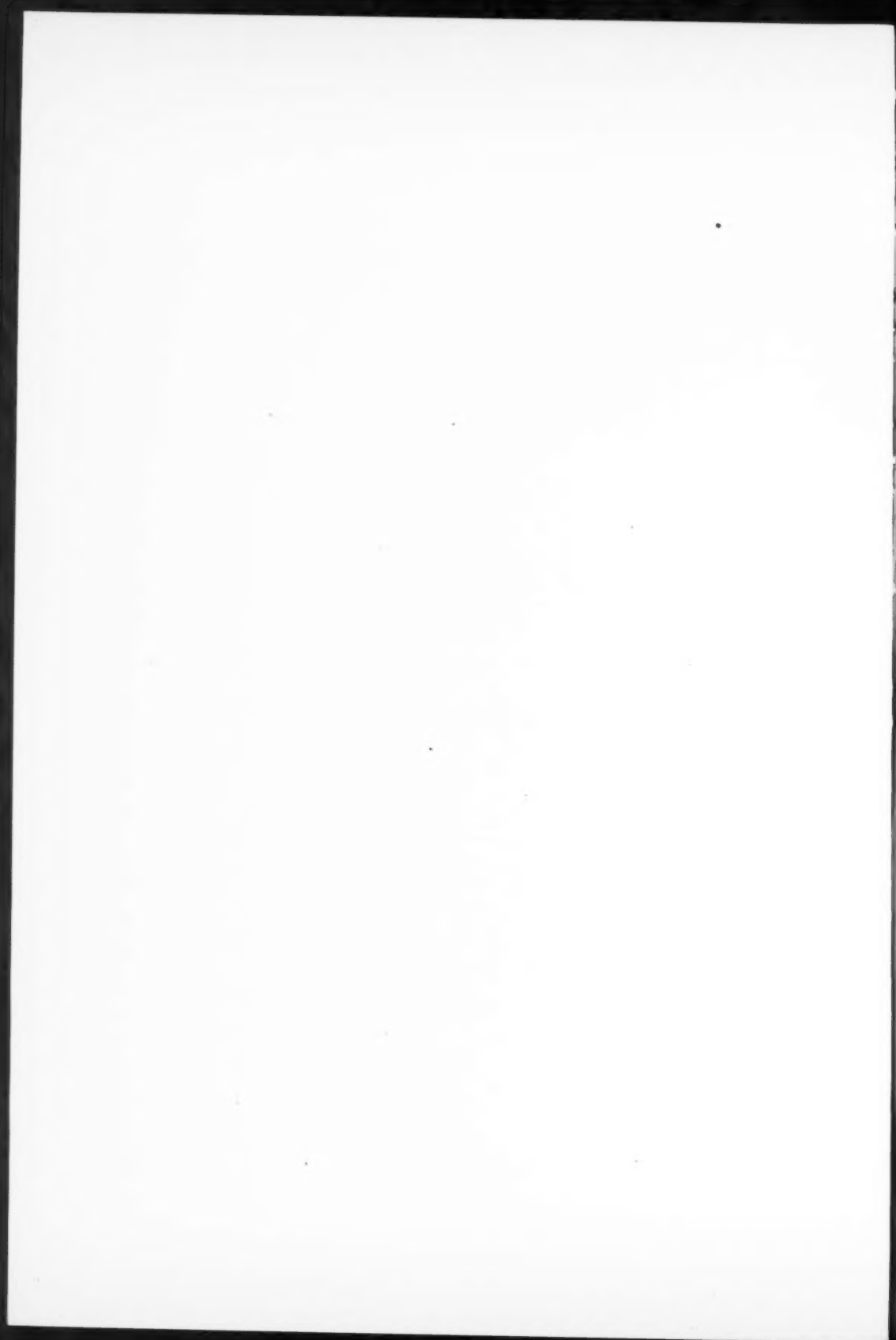
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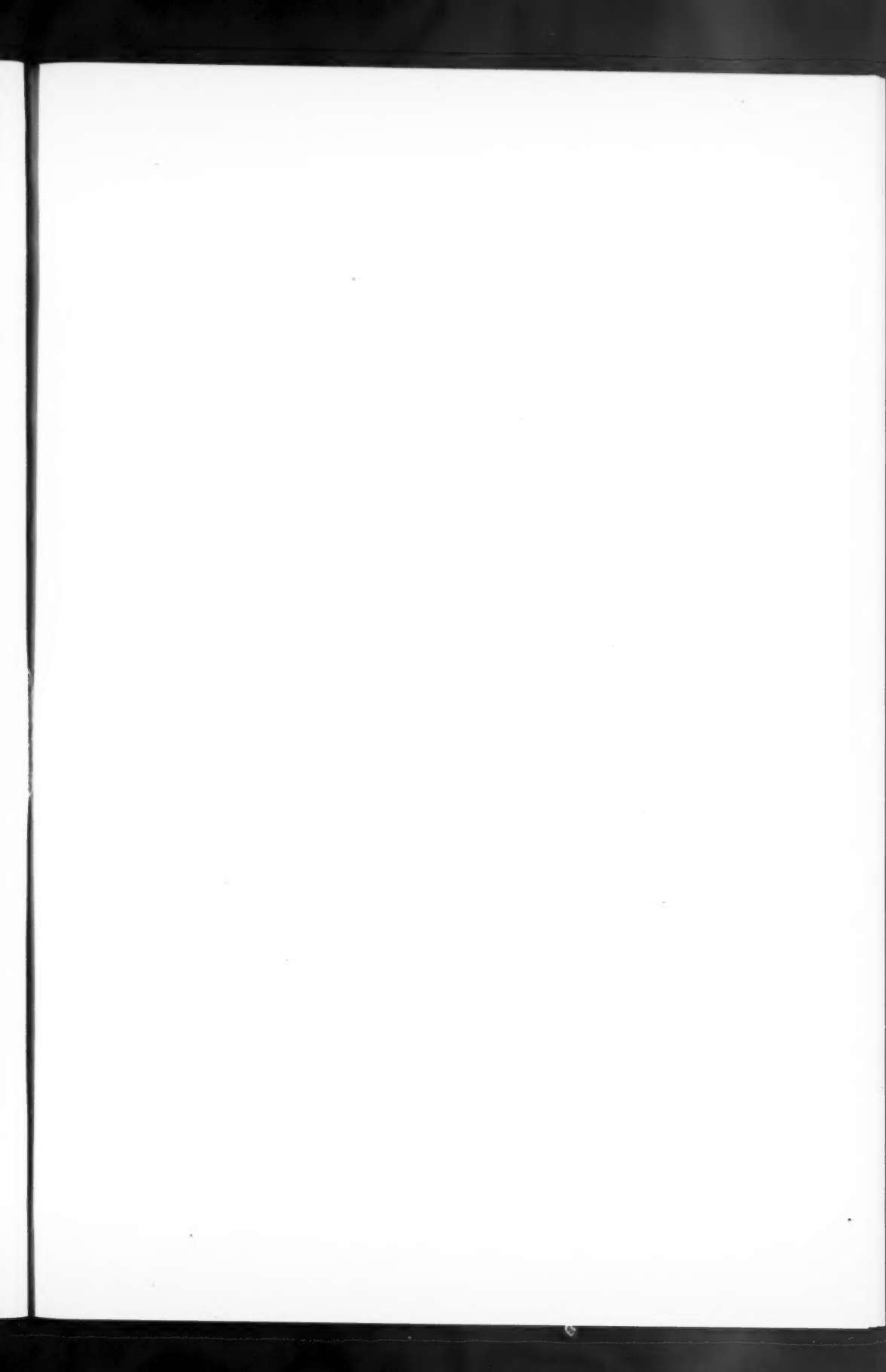
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CLINICAL MEDICINE AND SURGERY

GEORGE B. LAKE, M.D.

• Editor •

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VOLUME 44

JANUARY, 1937

NUMBER 1

EDITORIAL

Dr. John Gorrie

Physician and Inventor

WHEN, on a torrid day in summer, we enter an air-conditioned office, store or train, we breathe a voiceless prayer of thanks to him who made such comforts possible; but few of us realize that our benison goes out to a sturdy, clever, but little-known physician, who lived in the South during the first half of the Nineteenth Century.

The early life of John Gorrie is shrouded in romantic mystery. All that is known is that, one October day in 1803 or 1804, there arrived in Charleston, South Carolina, a beautiful young Spanish woman with a baby in her arms, accompanied by a robust, middle-aged Scotsman in the uniform of an officer of the Spanish army. Having established the mother and son in sumptuous fashion, the somewhat anomalous officer sailed away and never returned. There was a vague rumor of a royal lover who provided richly for his own, until affairs in Spain became so upset that the regular remittances stopped.

Meanwhile, young Gorrie was given every educational advantage, including his medical training at the College of Physicians and Surgeons, in New York; so that, when misfortune came upon his mother (who did not long survive it), he was prepared to support her.

After his mother's death, he practiced in Abbeville, South Carolina, for a time and, in 1833, settled in Apalachicola, Florida, which was then the third largest cotton market on

the Gulf Coast. Here the stocky, swarthy (his Iberian ancestry appeared in his dark skin and flashing black eyes), handsome, and cultured young man speedily made friends, for he was a friendly person, in spite of a deep, basic strain of sadness. He became, in turn, chairman of the city council, treasurer, postmaster, and mayor of the city, and held other important, non-political offices. And always he was busy with his growing practice.

In those days and in that sub-tropical climate, fevers were a great problem, and nobody knew much about them. Having a keen and inquiring professional mind, Dr. Gorrie set about to study them, and soon became convinced that, if his fever patients could be relieved of the torrid heat in which they sweltered for the greater part of the year, they would be vastly benefited. This seemed a fantastic dream, for the only ice which was ever available was imported, at long and irregular intervals, from New England, and sold at from fifty cents to a dollar a pound.

Gorrie, however, was well trained in general science, as well as in medicine, and conceived the "wild" idea that the well-known capacity of rapidly expanding gases to absorb heat might be utilized to freeze water into ice.

In spite of the ridicule of his contemporaries, he went to work to devise an apparatus to utilize this scientific principle, and by 1844 had actually made artificial ice; but it was

not until 1850 that his first practical working model was ready, and he gave his first public demonstration by providing blocks of ice about the size of ordinary bricks, to cool the champagne which was drunk at the sixtieth anniversary of Bastille Day.

On May 6, 1851, he was granted patent No. 8080 on his apparatus (illustrated in the news section of this issue), and he forthwith took steps to secure the capital necessary to manufacture it on a commercial scale. But the "father of air conditioning" was three-quarters of a century ahead of his time. The men with plenty of money did not have brains enough to see the possibilities of this revolutionary invention, and after he had sunk his own private fortune in the enterprise he gave it up in despair, died a few years later (June 16, 1855), and was carried to his grave with all the pomp and pageantry of his Spanish background and the reverence of a bereaved citizenry, for he had been, without doubt the "first citizen" of Apalachicola.

But the wider aspects of Dr. Gorrie's career must not be allowed to overshadow his professional achievements. Throughout his active life he was a successful practitioner of medicine and did much helpful lecturing and writing, in the field of general public health work, and especially in connection with the various fevers which were his special subject of study. As a matter of fact, his epoch-making invention, which has altered and extended the face of civilization far beyond his dreaming, was the outcome, not of any yearning for personal glory or wealth, but of a desire to alleviate the sufferings of his patients and improve the general health of the people.

The people of the State of Florida have placed a memorial to this simple, sincere, kindly, and intelligent physician in the "Hall of Fame" at our national Capitol; but every time we enjoy a bit of delicious food out of season; every time we place an ice bag on a fevered forehead; every time we develop a roentgenogram in the summer; every time we sigh with relief on entering an air-conditioned building, we should raise a monument in our hearts to Dr. John Gorrie.

If you have built castles in the air your work need not be lost; that is where they should be. Now put foundations under them.—THOREAU.

State Medicine and the People

FROM time to time we have taken occasion to publish various items of information upon

the disastrous effects to the medical profession which would result from the adoption of compulsory health insurance (State Medicine) in the United States, and we hope that our readers have noted these comments and have taken steps to counteract any tendencies in this direction.

The situation in this regard is now critical, as studies of the costs of such a system (to be paid by taxation) are reported to be now in progress, and it appears that legislation to this end will soon be introduced in the Congress.

A decision upon this vital question will be made, not on the basis of what the members of the medical profession think about it, but on the demand from the public; and it is the duty of every physician in this country to see that the people with whom he comes in contact are informed of the true situation, so that they will be able to express an intelligent opinion on the subject when the time comes.

To facilitate the education of the lay public in regard to what compulsory health insurance would mean to *them*, J. Weston Walch, of the Platform News Publishing Company, has prepared an enlightening booklet entitled "On the Witness Stand," in which he sets forth, in the form of simple and pertinent questions and answers, the things which people ought to know about the system of medical care which has failed in other countries, but which may be foisted upon them if they do not awake to its unhappy results and make a firm and united protest against it. This booklet may be procured from the Public Relations Bureau, Medical Society of the State of New York, 2 E. 103d St., New York City, at a cost of ten cents for one copy, the prices diminishing if they are ordered in quantity. Every physician should have at least a dozen or so of these informative brochures, to loan or give to his patients, so that the yeast of knowledge may be working in the dough of emotional propaganda.

If we do not wake up and do something to ward off this menace now, while there is yet time, it will avail us little to bewail our lot when we are caught among the cogs of a politically managed machine for mass-production medical service, whose chief purpose will probably be to grind out graft for those who manage it.

PROGRESS IN THE SCIENCE AND ART OF MEDICINE — 1936

THIS year, for the first time, we are offering our readers other opinions than our own regarding the most significant recent advances in medicine and the allied sciences. A Symposium, having the same title as this editorial, will be found on another page of this issue.

We still, however, will present the opinions of our editor, who has read and talked widely, regarding important new developments.

General Research

From a clinical standpoint, perhaps the most important recent development is that of *protamine-insulin*, which levels off the effect of this indispensable remedy in diabetes and makes it work more after the manner of a normally-secreting pancreas.

It seems reasonably probable that Hutton's work with the application of small doses of *x-rays* to the *adrenals* and *pituitary*, in the treatment of essential hypertension and other circulatory disorders, as a substitute for adrenal denervation and sympathectomy (see *CLIN. MED. & SURG.*, Sept., 1935, p. 442, and Sept., 1936, p. 429), may prove to be of epochal importance.

The studies of Huggins, Noonan, and Blockson, in regard to the functions of the *bone marrow* and the *reticulo-endothelial system*, (see "C.M.&S.," Aug., 1936, p. 383), should go far toward explaining the curative effects of natural and artificial pyrexia, and may have much wider connotations than this.

The year has seen much important research, in many quarters, regarding the *male sex hormone*, and while this work is not yet so advanced and well based as that on the female sex hormones, it gives much promise and several effective and apparently reliable preparations are now on the market, which should result in deferring the changes of senility in men.

Now that crystalline or highly purified preparations of most of the *vitamins* (especially B, C, D, E, and F) are available, their *parenteral* use is becoming more and more widespread, and may result in changing some of our basic conceptions of metabolism and nutrition.

The use of *oxygen*—subcutaneously, intravenously and by inhalation—is no longer looked upon as a final desperate resort in cases of heart disease, but is more and more being recognized as a part of the routine management of such cases.

Recognition of the fact that the sugars and

some of their metabolic products are the only foods which can be used by the brain, is leading to some important studies of the relation between *hypoglycemia* and certain psychogenic disorders; and it may turn out that a good many "insane" persons can be restored to social usefulness by keeping their blood-sugar up to the normal level or thereabouts, by a carefully planned diet and by the oral and parenteral administration of dextrose.

The work of Philip Franklin, in the training of deaf-mutes (see "C.M.&S.," May, 1936, p. 208), and of Earl R. Carlson with the victims of cerebral palsy ("C.M.&S.," May, 1936, p. 228), bids fair to result in the salvaging of many of the most pathetic and hopeless patients with which the physician is called upon to deal.

The year has seen the introduction or increasing popularization of three instruments which should be valuable additions to the diagnostic armamentarium of many physicians: A portable, electrically-operated, amplifying stethoscope; a small, portable, and reasonably-priced electrocardiograph—"Cardiette"; and a combined sphygmotonomograph and plethysmograph ("Heartometer"), illustrated on another page of this issue.

One of the most startling announcements came toward the end of the year, with the presentation, by Freeman and Watts, of ten cases where they had "ablated the worry center" by prefrontal lobotomy, in cases of disabling depressions and anxiety neuroses. This fascinating subject will be discussed more fully in our February issue.

Therapeutics

The introduction of new drugs and other therapeutic methods is not, as a rule, a sudden affair, but proceeds gradually, over a period of months.

Among some of the interesting remedies and methods which have come into prominence during the past year, a few, which appear to have the widest sphere of applicability, will be mentioned.

The discovery that the chemical, *allantoin*, is present in maggots and their excretions, and the preparation of this substance on a commercial scale, by the oxidation of uric acid, has furnished what appears to be an effective succedaneum for the rather disgusting larvae, in the treatment of chronic and indolent infected wounds.

The continuous drip method for the treat-

ment of peptic ulcer, employing a rather dilute suspension of aluminum hydroxide, seems to offer relief to a large and increasing number of patients.

"Cold" vaccines, for administration by mouth, which were mentioned in this editorial last year as an interesting possibility, have now been made a commercial reality by at least two reliable pharmaceutical houses.

The field of the stimulating effects of *benzedrine sulphate* has been widened to include, not merely narcolepsy (which is rather rare), but also post-encephalitic parkinsonism and various other more common somnolent states; And a pleasant liquid preparation of *glycocoll* or glycerine, which has proved to be a useful physiologic tonic in the myasthenia of convalescence and similar states, has increased the possibilities of its application.

A new short-acting barbiturate, for use in intravenous anesthesia—*Pentothal-Sodium*—has been assuming a place of increasing importance during the year, as it seems to have certain advantages over *Evipal*, which has hitherto held first place in this field, and is now by no means to be discarded.

Mandelic acid and its salts have come into prominence this year, as more or less physiologic urinary antiseptics, simulating the effects of a Ketogenic diet. These preparations appear to be effective against the colon

group of organisms, but not against cocci.

Physical Therapy

Nothing especially startling has transpired in the department of physical therapy during the year, but the field of *pyretotherapy* has been considerably broadened and consolidated,

partly, perhaps, as a result of our newer knowledge of the functions of the bone marrow and of the effect of heat upon these. In this work, the *Inductotherm* seems to be increasingly important; and a new method—"Plasmatic Therapy"—employing an ingenious and completely regulable modification of the electric pad, appears to be making a place for itself. Moreover, the local application of regulated conductive heat bids fair to come into wider use with recrudescence of the "ThermB," which permits the simple and easy employment of this agency, while selling at a price within the reach of any active general practitioner.

The employment of small to medium doses of x-rays, in the treatment of acute infections, gained some impetus toward the end of the year, and will be more fully discussed in these pages next month. It may be no more effective for this purpose than the foreign proteins, hydrochloric acid, and other parenterally injected leukocyte stimulators, but the method cannot be ignored and should be carefully watched.

NEXT MONTH

Dr. Albert W. Dowson, of Chicago, will offer the first installment of a four-part article giving the most complete, detailed, and practical discussion (with illuminating drawings) of the injection treatment of hernia which we have yet seen. Subsequent installments will follow monthly.

Dr. Walter Freeman, of Washington, D. C., will throw light upon two of the most startling methods of treatment of psychic diseases which have been introduced in modern times.

Dr. George B. Lake, of Waukegan, Ill., will make his report of the recent meeting of the Southern Medical Association, including, among other things, a few more details of one of the methods presented by Dr. Freeman.

COMING SOON

"The Surgical Treatment of Enlarged Breasts," by Clifford F. Dowkontt, M.D., New York City.

"Uncinariasis: Report of a Recent Case," by Curtis Henderson, M.D., Clay City, Illinois.

THIS HOUR IS MINE

God pity those who wait, year after year,
For some far, misty day to bring romance!
I dare not dread that prudes may look askance,
Lest they might quench my heart with canting fear.

So I must feel with all I am, and see,
Each moment, vividly, nor miss my chance.
This is the hour! Life will not wait for me.

G. B. L.

LEADING ARTICLES

Progress in the Science and Art of Medicine

(A Symposium)

EDITORIAL NOTE: *Desiring to give our readers some ideas, other than our own, as to the most significant recent developments in medicine and the allied arts and sciences, we requested a number of well-known and thoughtful physicians to send us their answers to the two following questions:*

"1.—What discovery or invention in any field, made during the past year or two, do you consider to be of the greatest actual or potential importance to clinical medicine, and why?"

"2.—What do you consider the most important drug or other therapeutic measure introduced to the medical profession within the past year or two, and why?"

Here follow the answers received from a number of these men.

**Otto Leyton, M.A., M.D., D.Sc.,
F.R.C.P., London, Eng.**

Physician to the London Hospital

WHEN you ask me to discuss the most important development in medicine during the past year or two, you invite me to display my ignorance. Advances of immense importance may have been made without having reached my eyes or ears. That such a thing can happen to any of us was proved to me some fourteen years ago (when many of my diabetic patients were taking insulin) when my secretary told me that she had been rung up by the secretary of one of the most renowned physicians in London, who said to her, "I have been asked by my chief to find out something about insulin. What is it? What is it for?" There may have been discoveries as epoch-making as insulin, which have remained unknown to me.

My interpretation of "the past few years" makes me exclude the development of the theory, first enunciated by the late Prof. W. E. Dixon, that the nervous impulse leads to the formation of acetylcholine at the myoneural junction; and makes me exclude also the method of improving the blood supply to a limb by the application, alternately, of diminished and increased atmospheric pressure, which is accomplished so successfully with Herrmann's Pavaex apparatus, and others of similar construction.

I feel that my choice must be made from the following three discoveries:

1.—That the ratio of the different types of cells in the anterior lobe of the pituitary gland can be modified by the administration of different substances and the removal of certain glands.

2.—That the common cold, influenza, and rheumatic fever are of virus origin, and that a virus can be cultured and probably an immunity produced.

3.—That some of the sex hormones are of a comparatively simple chemical structure, bear a close relation to the carcinogenic substances, and may be synthesized from cholesterol.

Due to my comparative ignorance of the latter two, I tend, perhaps, to exaggerate the importance of the first.

Just as, into a single spermatozoon and ovum, is packed more than ever came out of the box of Pandora, so too a cell of the anterior lobe of the pituitary gland is packed with potentialities for elaborating a large variety of hormones. We have reason to believe that, although each type of cell makes more than one hormone, nevertheless the basophil cell does not elaborate the same hormones as the acidophil cell. By modifying the ratio of the cells, it is within the limits of possibility that the hormones released will be changed and thus develop new treatment of diseases due, not to the destruction, but to hypoplasia and hyperplasia of the internal secreting glands.

We know that, in some cases of maldistribution of fat, there is an excess of basophil cells, and that these cells not only decrease by removal of the adrenal glands, but also upon administering certain sex hormones.

The fact that basophilism is frequently accompanied by hyperglycemic glycosuria which does not react well to insulin, confirms the work of Houssay, Anselmino, and de Wesselow and Griffiths, who have supplied evidence that one kind of diabetes mellitus is of pituitary origin, and incidentally lends a semblance of rationale to the treatment of the disease with estrone.

Hyperthyroidism may eventually be treated by inducing the pituitary gland to diminish still further its production of thyrotropic hormone, and the same line of treatment may apply to von Recklinghausen's disease of the

bones; whilst the elaboration of an even greater quantity of certain hormones may modify myxedema, Addison's disease, and diabetes of both pancreatic and pituitary origin.

The imagination allows one to see, not only many diseases controlled through this channel, but also much crime which is due to an abnormal urge due to overactivity of certain cells. Again, if anger is a "short madness," a decrease of the adrenotropic hormone may reduce crime committed by individuals of emotional natures, and a decrease of gonadotropic hormone may reduce sexual crimes.

These are some of my reasons for placing first on the list the discovery that it is possible to modify the ratio of the different kinds of cells in the anterior lobe of the pituitary glands, although I realize that the work on the viruses may save mankind from two of its most evil scourges and the work on the sex hormones may possibly lead to the control of cancer and a modification of the old age of man.

2.—The most important therapeutic substance introduced during the past year or two is, in my opinion, testosterone propionate (Perandren*). I make this selection, even after having seen patients suffering from myasthenia gravis transferred from purgatory to paradise by swallowing, at intervals of five or six hours, 15-milligram tablets of Prostigmin, because, fortunately, the victims of that fell disease are very limited in number and therefore Prostigmin can benefit only a very small proportion of mankind.

Testosterone propionate and estrone dihydroxy benzoate prove that man can combine substances and produce agents of greater potency than those which occur in nature. I doubt whether this new preparation will fulfill the dreams of Brown Sequard and rejuvenate, or even prevent the devastating effect of time upon the majority of the tissues of men. It seems probable, however, that it may delay hypertrophy of the prostate gland, even if it fails to cause atrophy. As an aphrodisiac it is unlikely to have any action other than that produced by suggestion. It may, however, supply the aged with mental energy and change the "seventh age of man."

**Walter C. Alvarez, M.D., F.A.C.P.,
Rochester, Minn.**

Prof. of Medicine, Univ. of Minn.

I THINK the most promising and most interesting thing of potential value to medicine that I have seen this year I saw in the laboratory of Professor Ernest Lawrence, of the University of California. While I was

there his huge cyclotron was hurling billions of neutrons at tremendous voltage into a flask containing sodium. As a result of the collisions between atoms, the sodium was becoming radioactive. When such sodium, or any other artificially-produced radio-active atom, is injected into an animal or into a man, it is the easiest thing to follow the tagged molecules about through the body and to measure the amounts in the urine and the blood and the sweat. I believe that tremendous advances are going to come now in the field of biochemistry, and this new knowledge is bound to be of great use to us in medicine.

It is hard to answer your second question. To my patients, probably the most appreciated drug which we have come to use frequently in the last two years is ergotamine tartrate, which in most cases will bring prompt relief to sufferers with migraine.

Another splendid achievement of the past few years is the rapid treatment of gonorrhea with artificial fever. I think this marks a remarkable step forward in man's conquest of disease.

**Logan Clendening, M.D., F.A.C.P.,
Kansas City, Mo.**

Prof. of Clin. Med., Univ. of Kans. School of Med.

MY answers may seem somewhat unsatisfactory. In explaining them, let me say that last year, for the New Year's number of my column, I asked about ten of my friends, representing special fields such as internal medicine, gynecology, radiology, surgery, ophthalmology, etc., to put down a list of what they considered the most important contributions to their fields in the past year. With hardly an exception, they said that there had been no contribution of any consequence. I must confess that I feel very much the same way. In spite of the gigantic increase in the number of papers that are read to our societies, it seems to me that we have made very little progress in clinical medicine and surgery in the past five years, or perhaps even longer.

In answer to your first question, therefore, I must say that I do not believe there has been any discovery or invention which has any considerable actual or potential importance to clinical medicine. There are several that I could think of that seem somewhat humble, which I wish somebody would work on, such as a comfortable, non-spillable bedpan.

In answer to the second question, I think of protamine insulin, cyclopropane for anesthesia, carbarsone for amebic dysentery, salyrgan as a diuretic, and the barbituric hypnotics, because of their rapid and sure effect, their harmlessness and, in my opinion,

*Also known, in the United States, as Oretol, Lydin, Inhibin, Androsterone, etc.—Ed.

their freedom from the dangers of habit formation.

Warren F. Draper, M.D., Washington, D. C.

Acting Surgeon General, U. S. Pub. Health Service

EVALUATION of the various discoveries, inventions, and new drugs during the past two years is most difficult. No discovery stands out sufficiently, in comparison with others, so that the choice of the most important is made easy. In view of this fact, I shall content myself by listing, without comment, three important discoveries in the field of research:

1.—Research by Huggins and his associates, of the University of Chicago, in which they showed the effect of temperature upon the red and yellow bone marrow in animals. This work was exhibited at the meeting of the American Medical Association in Kansas City in May, and received the gold medal.

2.—Research of Dr. B. A. Houssay, of Buenos Aires, Argentina, on the relation of the pituitary body to sugar metabolism.

3.—Research of the Rockefeller Foundation on so-called "jungle yellow fever," in which they have shown that some means, other than *Aedes aegyptus*, are responsible for the spread of yellow fever.

I feel that the work done by Armstrong and Harrison, of the Public Health Service, on a nasal spray for preventing poliomyelitis may have potentialities, but it will take years of use before any interpretations can be ventured, and, therefore, I have purposely omitted this.

W. A. Newman Dorland, M.A., M.D., F.A.C.S., Chicago, Ill.

Prof. of Gynecology, Illinois Postgrad.
Hosp. and Med. School

ESSENTIAL hypertension, or high blood pressure, which may occur in the young as well as in the old, is one of the gravest disorders to which the human body is subject. Could it be corrected, one of the great medical problems of today would be solved. Hence, I believe that Crile's proposed surgical intervention, the extirpation of the complex group of sympathetic nerve ganglia which twine, ivy-like, around the aorta and are actuated largely by the adrenals, is a suggestion of the greatest potential importance announced within the past few years.

These ganglia, activated by the adrenalin which is poured into the general circulation

by overactive adrenal glands, stimulate the aorta to increased hemic circulation and thus increase the oxidation of the body tissues, thereby raising the blood pressure. The removal of these overactive ganglia arrests the pernicious process. Thus far, Crile reports a number of successes following the performance of this exceedingly delicate operation. This is the latest development in the science of endocrinology. These so-called ductless glands, which were formerly regarded as useless vestiges of originally vitally important organs, are now known to be among the most powerful and essential anatomic structures in the body. The biologic proof, offered by Crile, of the vital influence of the endocrine glands, notably the adrenals, in raising the blood pressure, is the fact that in the lion, most active of the animal creation with rapid blood circulation, the ratio of the weight of the adrenals to the entire body weight is 1 to 22,000, while in the sluggish crocodile it is only 1 to 280,000.

So profuse is the outpouring of new therapeutic remedies and methods today that it becomes exceedingly difficult to select any one as the most important of the recent additions; but since chronic arthritis, which is now believed to be focal in origin and streptococcal in nature, is an exceedingly common affection and one which is most resistant to treatment, Wilber E. Post's recent suggestion is most interesting. This is the determination of the electrical nature of the streptococci believed to be the cause of chronic arthritis and the employment of a toxin filtrate made from the patient's serum as a remedial agent. The offending streptococci are found in the nose, throat or carious teeth of the patient, and are found to travel at an unvarying velocity and to have a definite negative electric charge. By means of electrodes attached to a microscope slide furnished with a small chamber in which a quantity of the patient's serum is contained, the speed with which the germs travel from pole to pole is determined. If the particular streptococci sought are present, a bouillon culture is made and filtered. This filtrate contains a toxic material produced by the growth of the organism, and small doses of it are injected subcutaneously. Post states that, of 175 cases of chronic arthritis so treated, 145 showed definite improvement; while of 95 cases of infectious neuritis so treated, 80 showed a decided improvement. These results are so vastly superior to those obtained from other methods of treatment that the suggestion is well worth further investigation.

FORMULA FOR SUCCESS

You cannot make proper progress unless: (1) you are mentally alert; (2) you keep up with new developments; (3) you get all the equipment you need; and (4) you believe in yourself.—Quoted by DOROTHY FRACHT.

Progress in Laboratory Methods

By Theodore C. F. Abel, M.D., Chicago, Ill.

NEW developments in laboratory methods have been so numerous in the past few years that one can do no more than briefly discuss the various items in such a short paper as this.

Probably most important of all, and so widely accepted by the medical profession that it is difficult to realize that it falls within the field of new developments, is the Friedman modification of the Aschheim-Zondek pregnancy test. The test is still subject to a 2-percent error, but fairly strong evidence is available that this is due to defects in the ovarian system of the rabbit, therefore re-checking any doubtful case with a second test reduces the possibility of error to approximately 0.04 percent.

Hardly a week passes but what the literature brings out some purported new pregnancy test, intended to supplant the Aschheim-Zondek test by reason of cheapness or time-saving. I have carefully tested a number of these, with uniformly disappointing results. Probably the chief fault with some of them is the absurdity of a large proportion of males giving a positive pregnancy test.

Bacteriology

In the field of bacteriology, a number of extremely important developments may be noted.

The new Neufeld method for typing pneumococci does away with the twenty-four-hour delay involved in the old mouse method. The Neufeld method is based on the fact that, when anti-pneumococcus serum of the proper type is added to pneumococci of that type, a marked swelling of the capsule occurs. This permits the administering of serum in Type I and II pneumonias twenty-four hours earlier than was hitherto possible—a marked advantage, as statistics show that the earlier this serum is administered, the greater the chance for recovery.

Development of the Bordet-Gengou medium gives the laboratory an accurate method for the diagnosis of pertussis and the release of cases from quarantine. Plates are inoculated by causing the patient to cough on the exposed plate. The pertussis bacillus grows in metallic-looking colonies, making the plate appear as if a handful of mercury had been thrown on it.

A quick method of culturing diphtheria bacilli on horse serum has been devised. Growth occurs in eight hours, resulting in a marked saving of time in the administration of antitoxin.

Dr. Dack and his co-workers at the University of Chicago have made two contribu-

tions of great practical value. One is the isolation of a food-poisoning strain of staphylococcus. These organisms can be identified by means of a culture medium developed by Frazier and Stone. The second is the discovery that the pleomorphic anaerobe, *Bacillus fundiformis*, is a causative factor in certain cases of ulcerative colitis.

Dr. Barga isolated a diplo-streptococcus from intestinal ulcerations, and reports that vaccines made from these organisms exert a highly beneficial effect. My own experience has confirmed this.

A new technic in the culturing of the gonococcus has increased the number of positive cultures by fifteen percent. It consists in growing the organism on chocolate agar in the presence of carbon dioxide. To the completed culture, a 1-percent solution of tetramethyl phenylenediamine is added. Colonies of the gonococcus turn a bright purple color. This is known as the oxydase reaction.

The Wilson-Blair medium offers a method whereby typhoid, paratyphoid A and paratyphoid B bacilli, can be identified in eight hours. Feces are streaked on the plate and the organisms mentioned above are identified by a black, metallic-looking growth. Several types of dysentery bacilli give a green growth, as does *B. aerogenes*. Colon bacilli, as well as all gram-positive organisms, are completely inhibited.

Routine testing by agglutination methods has disclosed that undulant fever is far more common than has hitherto been supposed. Many cases, now diagnosed as "neurasthenia," may prove, after more adequate laboratory investigation, to be undulant fever.

Hematology

The most important developments in the field of hematology have been based on the perfection of vital staining methods.

The reticulocyte count is made by the addition of cresyl blue to the blood at the time it is taken. A slide is then made and stained by Wright's method. The reticulocyte shows up as an erythrocyte with a blue network. The reticulocytes are the new cells, and the percentage of them is of considerable value in determining whether a given form of treatment for anemia is effective. The percentage of reticulocytes is also of value in the diagnosis of acholuric jaundice, in which condition they may run from 10 to 50 percent of the total red cells.

Vital staining with neutral red and Janus green is of value, as it helps to make more definite the classification of the various cells. Mitochondria are stained blue with Janus

green. Neutral red stains depend upon the pH of the granules, ranging from yellow to maroon.

It is now known that a high monocyte count is of considerable value in diagnosing tuberculosis, almost all active cases showing this blood picture.

The sedimentation rate of red corpuscles is, in my opinion, of great importance because of the lack heretofore of a dependable test for carcinoma in cases where a tissue specimen can not be obtained. The sedimentation rate is, of course, not a specific test for carcinoma, but is of value because malignant conditions show an increased sedimentation rate. Other conditions showing this increased rate are pregnancy, tuberculosis, and acute infections. Allergic conditions show a delayed or normal sedimentation rate, while patients with nervous disorders or benign tumors show a normal rate. The test, therefore, is indicative of a malignant process, whenever the other conditions showing a rapid rate can be ruled out.

Tissue Technics

Tissue technic has been aided by the development of the dioxane method, whereby tissues not suitable for freezing can be put through in a period of three hours.

In serology the development of the Eagle flocculation test has combined the simplicity of the Kahn test with an end-result which is free from the difficulty in reading which characterizes the Kahn test.

In spinal fluid, the tryptophan test is now regarded as a specific test for tuberculous meningitis.

One of the newer developments is the diagnosis of lymphogranuloma inguinale by means of the Frey or mouse-brain antigen, which enables a differentiation of non-specific inguinal adenopathy from that due to syphilis, chancroid, or gonorrhea.

Parasitology

In the field of parasitology, the recent Chicago epidemic of course taught us much with regard to the prevalence of *Endameba histolytica* and its differentiation from non-pathogenic amebae. Culturing on liver-infusion agar, with horse serum and rice starch, enables the laboratory to pick up a good many cases which might otherwise be diagnosed as negative. A second development is the well-proved fact that a single stool examination is not sufficient for a negative diagnosis of *Endameba histolytica*. Competent parasitologists are agreed that at least six examinations should be made, preferably on the same day.

The pathogenicity of *Trichomonas vaginalis* and the acceptance of this organism as one of the causes of leukorrhea is still a mat-

ter of theoretical debate, but in my own experience this has been proved over and over again. It is, however, important to bear in mind that it is not the only cause. *Monilia albicans* is a second factor. Inasmuch as these two organisms require entirely different methods of treatment, it would seem that adequate microscopic study is the first step necessary here. It should be stressed that, in order to detect *Trichomonas vaginalis*, the examination must be made at once. The organism dies rapidly after leaving the body, after which it resembles a pus cell. Upon drying, it quickly disintegrates.

In electrocardiography, the realization that the taking of the fourth lead (chest and back) often gives valuable information with regard to the presence of a coronary condition, in cases which would show a normal electrocardiogram if only the conventional three leads were run, renders the addition of this lead a matter of increased aid in diagnosis.

Allergy

Allergy tests have been discredited in the past, due to the tests being made for too few substances and failure of the patient, either knowingly or unknowingly, to follow the regime which the tests suggest. The advances in this field naturally lie in the discovery of new and hitherto-unsuspected substances which give violent reactions. Much consideration is being given of late to sensitivity to various fungi. The failure in treatment of many hay fever cases with pollen extracts seems to be due to the failure to investigate this factor. Sensitivity to foods may also play an important part in hay fever. Chocolate is one of the worst offenders here.

Ash is a little-mentioned pollen which gives frequent and violent reactions. Cottonseed, widely used for butter substitutes and fish packing, as well as for animal fodder, causes violent reactions and is frequently not tested for. Other substances stressed only in the last few years are vanilla, ursol, and castor bean.

A condition which is extremely widespread and for which current methods of treatment are highly unsatisfactory is **acne**. The statement that acne can, at times at least, be an allergic condition is certainly not original with me. However, this seems to be generally overlooked, and as it was not mentioned until recently, it can with consistency be listed in a paper on laboratory progress. It seems beyond question that some cases of acne are entirely cleared up by the withdrawal of certain foods to which patient shows a skin reaction. Perhaps the use of the term "acne" is unfortunate. Certain physicians who have gained good results in these conditions have suggested that these lesions

be called "allergic papules" when apparently due to food sensitization.

I have mentioned only such tests as have proved fairly practical and are generally ac-

cepted. Lack of space has prevented my commenting on a number of new developments which require more investigation.

7 West Madison St.

A New and Dependable Hernioplasty

By Czar Johnson, M.D., F.A.C.S., Lincoln, Nebr.

RECURRENCE of inguinal hernia after operative repair should be a thing of the past. For the past seventeen years I have used



Fig. 1.—Shows the internal oblique muscle retracted and the peritoneum incised.

an operative procedure which, in my hands and in the hands of others who have used it, has eliminated recurrence. To the best of my knowledge and belief there has not been a single recurrence at the site or in the immediate neighborhood of the original hernia in the cases I have operated on with this technic, and a vast majority of the operations have been done with infiltration anesthesia, which is my choice.

Operative Technic

Select an imaginary point an inch and a half to the inner side of the anterior superior spine of the ilium; an inch and a half below this point begin a skin incision two and one-half inches long, parallel to Poupart's ligament; expose the fibers of the external oblique muscle; split the fascia, in the same direction and length as the skin incision, and retract the edges of this opening. The internal oblique muscle now lies in the field of operation and the internal opening of the inguinal canal is approximately in the middle of this exposed area.

Using blunt dissection, retract the internal oblique muscle upward and expose the

parietal peritoneum (see Fig. 1). Open the peritoneal cavity and gently retract its edges. Evacuate the contents of the hernial sac, if there are any tissues in the sac. The mouth of the sac appears in the lower angle of the operative field and when empty resembles the open mouth of a sun fish (see Fig. 2).

Catch the posterior lip of this opening with a hemostat and lift it up gently. With the finger as a guide, insert No. 2 chromic catgut, on a curved, round needle, one-half inch from the edge of the peritoneum and transversalis fascia; pass the needle through the exposed and lifted portion of the mouth of the sac,



Fig. 2.—Shows the mouth of the sac in the lower angle of the wound.

one-half inch below the margin of the lip upon which the hemostat is attached; catch the peritoneum and the transversalis fascia on the other side of opening one-half inch from the edge of these structures and reverse the procedure in the same plane and manner to form a mattress suture (see Fig. 3). Close the remainder of the peritoneum with mattress sutures passed through the peritoneum and transversalis fascia, which everts the edges.

When these layers have been sutured, the mouth of the hernial sac will be in the lower angle of the field and well elevated above the

suture line (see Fig. 4). If the sac is large, remove it (see Fig. 5). If small, scarify the inner surface and suture with fine catgut, to prevent dead space. Scarify the edges of the retracted internal oblique muscle and suture it to the cremaster muscle and adjacent Poupart's ligament with No. 2 chromic catgut.

Close the external oblique fascia by the overlapping method of Halstead. Place a few strands of plain catgut in the lower angle of the wound for potential drainage. Close the skin in the manner desired. Direct the pa-



Fig. 3.—Shows forceps on the posterior lip of the mouth of the sac, elevated, and a mattress suture through the peritoneum, transversalis fascia, and posterior wall of the sac; also the accompanying suture in closure of the peritoneum and transversalis fascia.

tient to wear a good suspensory, to relieve tension on the spermatic cord. Keep him in bed for fourteen days. Restrict locomotion for another week. Interdict unusual strains for a period of two months from the date of operation.

Conclusions

This procedure is simple and effective. Management of the mouth, neck, and body of the sac under direct vision prevents guesswork in obliterating the hernial sac and opening.

The closure used eliminates the crescentic pucker or dimple, which occurs when the neck of the sac (or, as a matter of fact, any tube-like structure) is constricted circumferentially. The effective closure and obliteration of any cleft is the crux of successfully



Fig. 4.—Shows the peritoneum and transversalis fascia closed. The mouth of the sac is above the suture line, with a finger in the sac, to demonstrate it and for removal if desired.

precluding a recurrence of an inguinal hernia.

The transversalis fascia, when united with the peritoneum by mattress sutures, strengthens the inner layer of the wall.



Fig. 5.—Shows the sac removed and the cut edges of the former sac above the suture line.

The short incision, above the hair zone, affords ample space and a clean field.

These conclusions and this procedure are based upon actual clinical experience with several hundred operated cases.

Bankers' Life Bldg.

WHAT WE NEED

Politics without "graft"; education without fear; patriotism without hate; love without selfishness. These are the essentials. You cannot be a good internationalist until you have learned to be a good nationalist and a good individual.—GEORGE S. ARUNDALE.

Progress in Psychiatry

By Mary G. Schroeder, A.B., M.D., Elgin, Ill.

RECENT progress in psychiatry has been due to a shifting of emphasis from diagnosis to prophylaxis and treatment. To be sure, in order to classify patients for treatment and statistical purposes, much time is still spent in fitting them into one or another of the twenty-four forms of neuroses and psychoses listed by the American Psychiatric Association. Formerly, this was about as far as the interest of the average physician in state hospitals went. Patients were given custodial care; the majority of the manic-depressive psychoses recovered; the dementia praecox patients continued to regress.

In this paper, some of the progress made in the management of functional neuroses and psychoses will be discussed. Most of the latter will relate to the work done in the Elgin State Hospital, where I have been working for several years.

At Elgin, no case is brought to a staff conference without recommendations by the presenting physician as to the treatment to be followed, as well as a statement of the prognosis. After presentation, the case is discussed and further treatment suggested. Hydrotherapy, colonic flushing, occupational or industrial therapy, and psychotherapy are recommended for practically every patient.

For the last few years, especial attention has been directed toward correcting any physical defects which may contribute to the patient's maladjustment. The services of specialists in many fields have been called in to assist in this. A chiropodist comes two mornings every week; a proctologist spends two entire days each week with us; an oto-rhino-ophthalmologist and a urologist come every week; a dermatologist every two weeks; and an endocrinologist about once a month. Recently a resident gynecologist has been added to the staff, who makes pelvic examinations and refers the more serious conditions to gynecologists from the University of Illinois Medical School for operation. Much major as well as minor surgery is done by one of the staff, while other major operations are performed by surgeons from the Illinois Medical School or by the state surgeon.

Instruction and Recreation

The theological department is responsible for a very wholesome influence. A chaplain and one or two assistants are in residence. Protestant, Jewish, and Roman Catholic services are held weekly, and Episcopalian services fortnightly. During the summer, theological students of both sexes come out to serve, either as part-time attendants or to

assist in the music and recreational departments.

I have conducted classes for women patients, beginning five years ago with one class, and gradually increasing until, for the past two years, I have conducted six classes, with an average attendance of 250 weekly. Sessions begin and end with a few verses of popular songs, or a vocal or violin solo by some member of the class. Problems of life adjustment are discussed by the leader, or some play I have seen or lecture I have heard, or book I have read is discussed.

A very recent innovation is a class in psychiatry for attendants, which was started last year by one of the male attendants, acting as a supervisor. Twenty-four were graduated from a course of twenty lectures. This year, an invitation was extended to the women, and more than 100 attendants of both sexes have signed up, expressing their desire to give the time and to do the studying required. This is called the "Attendants' Training Class."

During the past four years, the Elgin State Hospital, with the assistance of the State Department of Public Welfare, has published two volumes of papers, written by members of the staff.

Dr. Gert Heilbrunn, of Berne, Switzerland, has recently come to Elgin to conduct a research problem in the use of insulin shock in schizophrenia. Dr. Heilbrunn has used this method for a year and a half, in a mental hospital in Muensingen, near Berne. He reports 73 percent recovery in patients whose psychosis is of not more than six months' standing, with return to practically normal interest in life and to participation in it. In this treatment, shock is produced daily for from two to three months.

A very recent advance—in fact, so recent that it is still in the making—is a textbook for attendants, which is being written by the staff at Elgin, under Dr. Read's direction and at the request of Mr. Bowen, director of the Department of Public Welfare.

The routine treatment of patients at all modern state hospitals, consisting of simple diet, regular hours, interesting occupation in a friendly, cheerful environment, and weekly entertainments, has not been changed at Elgin, except that, recently, more attention has been paid to active recreations. Patients of both sexes, from the chronic wards, are taken to the assembly hall one afternoon every week. The men choose partners and, to the music of the hospital band, the couples have a grand march. Roller skating, handball, and bowling are also available.

Occupational therapy is carried on as extensively as funds will permit. New patients, who are too confused to do anything else, can often be persuaded to do some work in an occupational therapy class. Perhaps the most helpful treatment of all is industrial therapy, or rather the emphasis placed upon the fact that the patient is *promoted from* occupational to industrial therapy.

New Methods of Treatment

The recent literature is followed carefully by the staff, and any treatment which seems promising is given a trial. Attempts to cure dementia praecox by various drugs have been disappointing, with one exception; intramuscular injections of sulphur in soy-bean oil seem to have produced very good results. The fever which is produced doubtless has an after-effect and, too, as one patient explained, "It hurt and took my attention away from the confusion in my head." A group of 103 cases receiving this treatment has been studied recently. Eleven (11) reported complete remissions; 54 moderate or marked improvement; the others, no results.

Many of the favorable results reported by other workers, especially in dealing with schizophrenia, have not been confirmed in our research experiments. Prolonged sleep treatment has been disappointing; however, one manic recovered after ten days' treatment and has remained at home for four years. Of 10 cases of dementia praecox, treated with intravenous injections of manganese chloride for ten weeks, one recovered and was paroled to his home, and two showed considerable improvement.¹

An unpublished report of an experiment in the administration of 20 grains (1.3 Gm.) of benzedrine sulphate three times daily, to 10 female hebephrenic praecox patients for one month, produced entirely negative results.

An extensive, controlled experiment, carried on for six months, in the feeding of vitamin B concentrate to 40 male and 40 female hebephrenic praecox patients, produced negative results.

The conclusion reached in most of these experiments is that, though some satisfactory results may be achieved through one or another of the various drugs, equally good or better results have come from ordinary routine procedures, without any medication.

Mary M. is a good example of this. In her last year at the university, she fell in love with a junior, who seemed equally interested in her. They corresponded regularly during the summer and fall after her commencement. When Christmas came, Mary returned to the university, ostensibly to visit her former room-mate, but in reality to marry her lover.

This was to be kept a secret from both families.

Mary returned home; her husband continued at college. Soon his letters became farther and farther apart. Finally he wrote saying that he had told his parents of their marriage, and they insisted upon its being annulled. Seeing that he was entirely dependent upon them, he felt that no other course was open to him but to comply. Mary's weeks of anxiety and the hurt to her pride caused a complete collapse. She became violent and was sent to a private sanitarium, but did not improve. When admitted to Elgin, almost two years later, she was one of the most violent, obscene, untidy patients ever received. Her case was diagnosed "hebephrenic dementia praecox," and she was sent to a cottage devoted to early praecox patients. After a few weeks, she began to help the attendants with the work at the cottage; in six months she went home on trial, and got along so well that she was allowed to stay. That was almost six years ago. The last report from her was that she is a finer, kinder woman than she ever had been before her illness.

Mental Hygiene and Voluntary Commitment

In the summer of 1934, I visited Sweden, to attend a meeting of the Women's International Medical Association at Stockholm. While abroad, I visited five mental hospitals. All of these were public hospitals, except the Maudsley Hospital, in London, which is a private, voluntary mental hospital. Everywhere the influence of the mental hygiene movement was apparent.

The first European Congress of this movement was held at Paris in 1920. Representatives from twenty-two countries attended, carrying back with them the mental hygiene message of understanding and kindness as prime necessities in dealing with mental patients.

The three Scandinavian hospitals visited were light, airy, and immaculately clean. Bright-red blankets were on all beds; blossoming plants in every window. There, as in the United States, emphasis was placed on the use of hydro- and occupational therapy.

In Sweden, a law, passed in 1928, allows patients to enter mental hospitals voluntarily. The results have been so satisfactory that, in 1934, eighty percent of all patients in the large new hospital near Stockholm were voluntary.

Voluntary commitment has many advantages. In Illinois, this form of commitment has existed for years. If a patient comes voluntarily, he is much more apt to cooperate with the hospital routine. He is not obliged to go through the expensive process of commitment. He does not lose his citizenship

1.—Elgin State Papers, 1932.

rights, and therefore does not have to have them restored after release. The hospital authorities feel freer to grant him privileges, such as freedom of the grounds, etc. Finally, he must be released three days after he gives to the managing officer a written statement of his desire to leave the hospital.

At Elgin, 14 percent of the admissions in 1935 and 1936 were voluntary—an increase of 3 percent over the previous year. The tendency towards this form of commitment is increasing rapidly and should be encouraged, so that patients may receive treatment before wrong mental habits have become so fixed that it is almost or quite impossible to change them.

The most outstanding results found abroad were at the Henri Rousselle Hospital in Paris. This hospital, instead of being new and built with all modern sanitary improvements, like those in Sweden and Denmark, was an old building, formerly occupied by one department of St. Anne's Hospital, which is used for merely custodial care. All patients are admitted voluntarily, and in one year 5,000 patients were treated there, all but 7 percent of whom, according to the director, could have been kept in an open hospital, if such accommodations and treatments had been available. Since these were lacking, it was necessary to commit 50 percent of the patients to custodial hospitals, while the other 50 percent went home, after discussing their difficulties with the staff.

Every effort has been made to overcome the inadequacies of the old building, though the work has been hindered by lack of funds. Labor of the patients is used as much as possible to beautify this building and its surroundings. When I was there, patients were upon ladders painting garlands of pink roses on the walls and ceilings of the hallways. The entire faculty of the University of Paris is available to assist in solving the patient's problems. Each one is given an intensive physical, laboratory, and mental examination during the first three days of his stay. There is a large social service department, which adds its contribution. Many research problems are carried on, an entire upper floor being devoted to them. An interesting feature is a miniature zoo in the hospital grounds; also a garden where the patients work. Occupational therapy is used in a friendly, cheerful environment.

Psychoneuroses

Perhaps one of the greatest advances in the whole field of psychiatry has been in the greater understanding and better results obtained in the handling of the psychoneuroses. Instead of treating these patients with either insolence or impatience, physicians are now trying to understand the unsolved personality problems which underlie these conditions.

Formerly, these patients were put in seclusion and given prolonged rest cures. Now they are encouraged to try to understand the cause of their maladjustment. This is apt to be found in an unwillingness to meet unpleasant or disagreeable factors in the situation.

The change in attitude towards the psychoneuroses is reflected in the work being done in a large institution in New England. One of the oldest private sanitariums in the country, it was organized on the lines so commonly found in private institutions. It gave excellent custodial care, in pleasant, even elegant, surroundings, but with little or no attempt to help the patients understand the nature of their experience nor to train them in habits which would help to prevent a recurrence of the disorder.

Since 1931, under new management, the entire atmosphere has changed. Instead of being a retreat from life, it is now an "Institute of Living," with many forms of activity to stimulate the interest of the patients. A faculty of more than seventy teachers, coming from colleges and universities all over the country, lectures to and directs the activities of the patients. The results have been gratifying, but no better than those reported by Dr. Riggs in 1923.² A study, made from two to six years after 800 patients had been treated by him, reported 50 percent complete recovery, and only 1.9 percent without improvement. He states that, if he had been sufficiently understanding, he would have been able to help these 15 patients who reported, "no improvement."

The duration of treatment had been from three to six weeks. Only 25 percent had been at Stockbridge more than once. Emphasis is placed upon the need for establishing a routine of life, including regular hours of work, play, and rest, and then following this routine, "sick or well, rich or poor, with faith, with courage, and with proper grace." Results such as these may encourage all of us to make more serious attempts at therapy in dealing with neurotic patients.

Another evidence of progress in psychiatry is the awakening of the community to the necessity of making life less difficult for individuals. The mental hygiene movement has been most active in trying to educate communities to their responsibilities in this direction. Although its primary purpose was to improve conditions in mental hospitals, it soon outgrew this objective and has devoted most of its attention, for many years, to prevention of mental illness. Members of the Elgin staff are requested to assist in this objective by giving talks over the radio and to many groups. These talks emphasize the need of

2.—Riggs, Austin Fox: Psychoneuroses: Their Nature and Treatment. A. J. Psychiat., July, 1923.

training children to meet difficulties and solve them, instead of trying to evade them.

This problem of adjustment of the individual to his environment is still very far from solution. Even those who are able to escape the pitfalls of insanity, crime, or suicide—the most severe forms of personality maladjustment—find it hard to lead a happy life.

Fortunately, the interest of workers in other branches of science is now turning toward the problems of human relationships. After years of devotion to "pure" science, with nothing but scorn for its application, scientific men and women are awakening to the necessity for a re-directing of their attention. They begin to realize that these problems demand attention—that they will not solve themselves and that unless these absent-minded professors come out of their beloved laboratories and begin to study and try to influence the human factors in the world about them, they may have no world to live in.

Some time ago, H. G. Wells wrote that "civilization is in a race between education and catastrophe," stating that he felt very doubtful of the outcome. In spite of all the efforts of educators, supplemented as they are by those children of the mental hygiene movement, the nursery schools, parent teachers' association, adult education groups, and others, catastrophe seems definitely in the lead today. Although there is an almost worldwide desire for peace, as well as an agreement among official representatives of fifty-

three nations not to resort to war, the trend at present seems definitely and rapidly toward it.

Why has mankind been so slow to accept the greatest bargain ever offered? If we could only believe that, if we "Seek first the kingdom of God and His righteousness, all these things will be added unto us," many difficulties would disappear.

While narrow self-interest governs national policies, trouble will almost surely continue. Until some of this emphasis can permeate into national and international relations, attempts to make further progress in mental hygiene or psychiatry will be thwarted.

Conclusions

Progress in the psychoneuroses has been shown by greater emphasis upon the need for attempting to understand the mechanisms behind personality maladjustment; also trying to gain the patient's cooperation in solving his own problems. Some outstanding results have been achieved, especially by establishing habits of industry and interest in something worthwhile.

In the psychoses, the use of various drugs has proved disappointing at Elgin, with the exception of injections of sulphur-in-oil in schizophrenia, where marked improvements have been secured.

Hope of even better results in fairly recent cases of schizophrenia may be entertained, in view of the excellent results reported in the use of insulin shock.

750 So. State St.

Notes from the International Postgraduate Medical Assembly

Reported by George B. Lake, M.D., Waukegan, Ill.

THE 1936 Assembly of the Interstate Postgraduate Medical Association of North America, which was held at St. Paul, Minn., October 12 to 16, inclusive, was a bit hampered by the fact that they had chosen a city with hotel facilities inadequate to take care of the large number of physicians who desire to attend these meetings. Many of those who came had to find accommodations in Minneapolis, and there were probably many who would have come if every hotel room in St. Paul had not been reserved a week or more before the meeting began. As it was, however, the registration of medical men was about 3,500.

As usual, this Assembly was a real postgraduate school, the speakers being scores of well-known teachers and clinicians from all over the country; and most of those in attendance worked at it as sincerely as if they

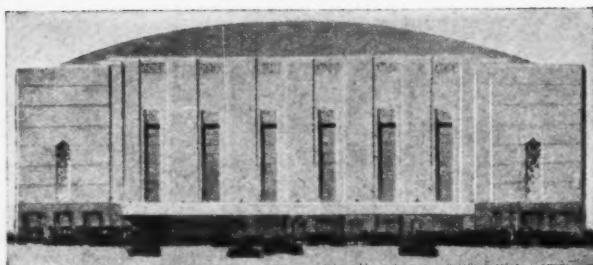
had paid substantial tuition fees (instead of a paltry five dollars) for the privilege of being there. The weather and the meeting place were satisfactory, and the long and heavy program was run off with commendable precision.

Scientific Exhibit

The scientific exhibit continues to grow in importance and variety at these meetings. There were 63 exhibitors this time.

Among a number of important and instructive exhibits in this section was one on ophthalmology, from the Wilmer Institute of the Johns Hopkins Hospital, Baltimore, which contained an impressive array of color photographs and drawings of pathologic conditions of the fundus oculi, and also many stereograms in color (with stereoscopes to view them, showing lesions of the external parts of the eye and eyelids. This feature alone

was practically equivalent to several weeks of attendance at a large eye clinic, and the stereoscopes were in constant use by the physicians in attendance.



Auditorium Where the Meeting Was Held.

There were two unusually instructive exhibits of endocrinopathies, one made by Dr. W. O. Thompson and his associates, of Rush Medical College, Chicago, and the other by the dynamic and original Dr. L. F. Hawkinson, of the Brainerd Clinic, Brainerd, Minn. Dr. Hawkinson was in his booth most of the time, and was always surrounded by a group of eager listeners. He had on exhibition a group of capons which, under treatment with synthetic testosterone acetate (Perandren "Ciba," which was being shown in the commercial exhibit), had developed into lusty and crowing roosterhood.

Dr. K. J. Karnaky, of Houston, Texas, put on a very helpful demonstration, illustrated by moving pictures, of the causes and treatment of leukorrhea.

We have all heard facetious suggestions that uncertain and careless surgeons should close the bellies of their patients with zippers, so as to facilitate going in again to remove sponges, forceps, or other trifles, inadvertently left within, or to do something which was overlooked on the first occasion.

Dr. Alfred A. Strauss and his associates, of Chicago, are actually *using* zippers, to close the gastric incisions in patients whom they are treating for inoperable carcinoma of the stomach by means of surgical diathermy, where several treatments are to be given a week or ten days apart. They demonstrated their technic with diagrams and by word of mouth.

Commercial Exhibit

The commercial exhibitors were also unusually numerous (there were 153 of them) and put on a good and highly educational show which, alone, would have repaid any active clinician for the time and money he spent in coming to the meeting.

Many drugs and appliances, which those who attend medical meetings regularly have seen before, but which most of us need to see

and hear about several times before they really "sink in," were in evidence and were freely discussed.

For instance, Cameron's "Heartometer" was shown, in its

first form, at Kansas City last summer, but it has been much improved since then and attracted much more favorable attention at this meeting (see Fig. 1). Basically, it is a sphygmotonomograph and a plethysmograph combined, and will give, to a trained user, an astonishing amount of information regarding the condition of the heart.

The continuous-drip treatment of peptic ulcer, using suspensions of colloidal aluminum hydroxide, is being reported upon favorably, and has been presented in these pages. Now the Cleveland Chemical Associates are marketing a clever apparatus for giving this treatment with a minimum of fuss and messiness, and also a very acceptable preparation of colloidal aluminum hydrate, known as Creamalin.

The National Pressure Cooker Co. has adapted a standard kitchen utensil so as to make it a compact, simple, and widely useful autoclave sterilizer, which can be sold at a price within the reach of any busy physician and can be applied in a score of ways.

The American Power Instrument Co. was demonstrating the remarkable Cayo power instruments for bone surgery, which appear to make the trimming up and transplanting of bones about as simple and practicable as cutting out a little gingham house-dress (see Fig. 2). One would hardly believe the facility with which these saws, drills, and gouges (which look much like automatic pistols) do the work for which they are intended.

Among the new drugs and therapeutic agents shown were Merrell's Catarrhal Oravax, a vaccine against colds and respiratory infections which is effective when given by mouth (I understand that one or two other firms are marketing such a vaccine); Squibbs palatable and elegant preparation of glycoll or glycine ("Glycolixir"), for use as a tonic in general fatigue states; a pair of biologic products (vaccine and filtrate), by Ernst Bischoff, for the diagnosis (Dermatocofitin) and treatment (Dermatomycol) of



Courtesy, Cameron Heartometer Co.

Fig. 1:—Cameron's Heartometer.

mycotic skin infections of the ringworm group; a really new and effective preparation by Hoffman-La Roche, for rectal medication (Aiol suppositories), having a hydrophil, instead of a greasy base, cleverly shaped, and potently medicated; a new type of G. W. Carnrick's old, standard general endocrine preparation, Hormotone "T," containing additional ovarian follicular hormone (Thelestrin), so as to make it more effective for use in women; and probably several others which I missed.

The Eastman Kodak people drew the crowds to examine their wares by means of a miniature, daylight movie theater, where they showed animated cartoons, with music.

The Dionol Company made an effective demonstration of the fact that their product actually melts at body temperature. Under a plate of ground glass was an electric light bulb, so placed as to keep the surface temperature at between 99° and 100° F. (proved by a thermometer on top of the plate). On this they placed gobbets of their products, alongside similar gobbets of other (unlabeled) proprietary and pharmacopeial ointments. The former melted readily; the latter did not, or did so much more slowly and to a less degree.

Here follow abstracts of a number of the essays and clinics presented at the meeting.*

*The full text of all the contributions presented will be available within a few months, in book form, as the "Proceedings of the 1936 Assembly."

PERITONITIS

By Frederick A. Collier, M.S., M.D., F.A.C.S.,
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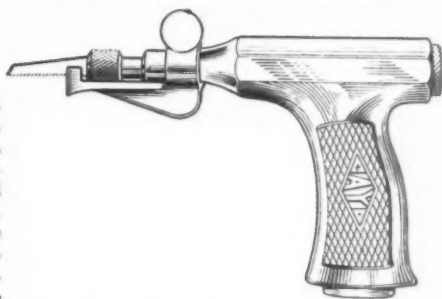
John B. Deever once made the pertinent statement, "Whoever knows peritonitis knows abdominal surgery."

The peritoneum, whose surface is nearly equal to that of the skin, secretes fluid and responds to bacterial invasion by producing an exudate. It also has absorptive properties.

Infectious peritonitis, which may be limited, spreading, or diffuse (with large areas involved at the same time), is rarely or never primary, so our first duty is to find the basic focus and treat it.

If a smear of the peritoneal exudate shows few leukocytes and little phagocytic activity, the prognosis is bad; and vice versa. The presence of many red cells (a bloody exudate) is also a bad sign.

Early operation in peritonitis is justifiable only for the relief or removal of a primary focus of infection. Do not make a direct attack on the exudate; use no antiseptics, irri-



Courtesy, Am. Power Instrument Co.

Fig. 2:—Dr. Cayo's Cross-cut Saw (Reciprocator).

gations, or suchlike measures. Drains are of no use in general peritonitis. One may drain the abdominal incision or an abscess or a mass of necrotic tissue, but not the belly.

Delay late operations until the patient is in the best condition possible. Do not purge nor give enemas to a patient with peritonitis or appendicitis. In later cases, wait until the physiologic balance, including the water balance, is established. If dehydration is present, or alkalosis or acidosis, give intravenous injections.

Always watch for dehydration, and if it appears, give enough 5-percent dextrose solution intravenously to replace all losses, but no salt if the blood chlorides are normal at the start.

Physiologic rest for the gastro-intestinal tract is essential in peritonitis. Give nothing by mouth. Keep the patient's belly decompressed by constant duodenal suction. This

latter measure is the greatest modern advance in the treatment of this condition. Morphine should be given as required.

The peritoneum has great defensive powers, and our treatment should be so planned as to aid nature. The best treatment is to make an early diagnosis of the primary focus, and operate before peritonitis develops.

ENDOCRINE DISORDERS IN CHILDHOOD

By Frederick W. Schlutz, M.D., Chicago, Ill.
Crane Prof. of Pediatrics, Univ. of Chicago
Med. School

In children, very small doses of insulin may produce marked hypoglycemia, with convulsive seizures.

Posterior pituitary extracts have definite clinical effects which are not yet fully understood nor completely worked out. There seems to be evidence that there is an anti-hormone for every hormone.

The clinical manifestations of thyroid deficiency depend upon the age at which they develop. There are two types of myxedema in childhood, and both are amenable to treatment with thyroid preparations. Early recognition and treatment of these conditions are important.

Hyperthyroidism is rare in children, but it does occur and should be watched for. The psychic factor seems to be especially important in these cases.

The thymus was formerly looked upon as being a highly important organ in children. Then followed a period when it was believed to be negligible. It is now considered as having real significance, but its functions and disorders are by no means fully understood.

An abnormal distribution of fat in children suggests some endocrine disorders and calls for a careful study of the individual patient.

The intelligent use of endocrine products requires a wide and thorough knowledge of the available facts, and a great deal of common sense in the application of the various preparations which are offered. The thyroid and anterior pituitary are fairly well understood, but the clinical application of all remedies in this class calls for much painstaking work and study to put it on a sound basis.

POINTS IN CLINICAL SURGERY

By W. Wayne Babcock, M.D., F.A.C.S.,
Philadelphia, Pa.

Prof. of Surgery, Temple Univ. School of Med.

All incised automobile accident wounds, especially those of the face, should be carefully debrided, accurately coapted, and sutured with discretion. They will heal kindly, if so treated.

Do not suture the skin and fascia in contused wounds. Local rest of the tissues is important. If contusions are severe, slit the

skin over them before swelling takes place, so that there will be no undue pressure to cause gangrene. Dress the wound with one layer of gauze, so that the air can get to it, and keep the patient quiet. A good dressing solution is saturated boric acid in 25-percent alcohol. Do not use phenol antiseptics.

If traction is to be made on an injured part, let it be done with wires, so that there will be no pressure on the soft tissues.

Suture thyroid wounds with silk, not catgut. When catgut is buried it causes the tissues to "melt down," in an effort to absorb it.

Silver wire, or modern, annealed rustless steel wire, is good in infected wounds.

After a gunshot wound that heals, if a secondary cosmetic operation is done, do not permit any tension on the tissues, for fear of secondary gas-bacillus infection.

In furuncles and similar localized infections of the hairy parts apply tincture of green soap frequently, with no dressing.

In infections that tend to localize, operate early, clean them out, and then give the parts rest. In spreading infections (streptococcus), do not operate until the patient's resistance is established. Insist on absolute rest, and give small blood transfusions.

INTRAVENOUS ANESTHESIA

By John S. Lundy, M.D., Rochester, Minn.
Prof. of Anesthesia, Mayo Clinic

Evipal Soluble and Pentothal-sodium are, so far, the best drugs for intravenous anesthesia in surgery. The latter gives better relaxation. The longer-acting barbiturates are better in mental cases.

Clear out the stomach, bowel and bladder; then give small quantities of a 5-percent Pentothal-sodium solution intermittently, rather than a large quantity at one dose. It is well to incorporate a cardiac stimulant (Coramine) with the anesthetic solution. If a cubital vein is used, strap the patient's arm to a board, so that he cannot move it during the intermittent administration. Watch pulse and respiration and adapt the dose to these. In most adults, 1 Gm. of Pentothal is the maximum.

Give $1\frac{1}{2}$ to 3 grains (0.1 to 0.2 Gm.) of Nembutal the night before operation; and 1/6 grain (10 mg.) of morphine, with atropine, one hour before the operation. For throat operations, the mucous membrane should be cocaineized before the intravenous anesthetic is given. An attendant should watch the patient's jaw and tongue during the operation.

Intravenous anesthesia is now widely used in many cases where nitrous oxide was formerly employed. It works well in many urologic cases, breast biopsies, chest operations, reduction of fractures, dental extractions, etc.; but is not so good in laparotomies, except

where a cautery is to be used. It should not be used in cases showing actual or potential dyspnea.

The intermittent administration of Pentothal-sodium permits longer operations to be performed under this type of anesthesia; but the postoperative sleep is longer after a single large dose.

Practically all cases of convulsions, occurring under general anesthesia, could be saved by administering an intravenous anesthetic at once.

MANAGEMENT OF THE CARDIAC PATIENT

By Charles A. Elliott, M.D., F.A.C.P.,
Chicago, Ill.

Prof. of Med., Northwestern Univ. School
of Med.

There is more to do for the patient with heart disease than give him digitalis and put him to bed. Many damaged hearts are carrying unnecessary overloads, and if they can be relieved of these they can function well enough so that their possessors can live reasonably normal lives.

General and focal infections are the most potent dangers to the cardiovascular system, and these conditions must be sought for and cleared up as completely as possible. The teeth, gallbladder, rectum, prostate, etc., must not be forgotten.

Anemia is always a handicap to the heart muscle and the rest of the circulatory system, which is malnourished as well as overworked. A deficiency of hemoglobin may even cause symptoms of angina pectoris. The patient should be given iron or liver or both, in adequate doses, because the diet accepted by most sick people is apt to be deficient in iron.

Anoxemia is common in cardiac patients, and most of them are greatly helped by oxygen, not merely as an emergency remedy, but as a regular part of the treatment. This gas may be given for days or weeks.

Edema is always a handicap to these patients, and should be remembered and removed, by diuretics and by diet. The cardiac patient does better when slightly dehydrated. If he is to be helped, he must be honest and sincere, and the methods to be used, with the reasons for them, should be explained to him.

Disregard the kidneys and do not restrict the intake of water. Shift the acid-base balance toward the acid side, thus liberating the bases, and water along with them. Keep the serum-proteins normal by including plenty of protein in the diet.

Remember that sodium chloride makes up 90 percent of the bases in the body, and eliminate or restrict the use of table salt. Potassium is a diuretic and tends to reduce blood pressure, so its salts may replace those of

sodium in the diet. Also give acids, as such or in the form of an acid-ash diet, which means the elimination of vegetables, milk, and most fruits.

Obesity is an immense handicap to the cardiac patient, who may be edematous and obese at the same time. He must weigh himself every day and *keep a record*. His weight must be kept down, even to the point of slight undernourishment, by methods which the physician should explain to him, and his basal metabolism should be kept at about minus 20 percent. This will give the heart a rest, and it will function reasonably well, even though still diseased.

The "thyroid heart," when detected, can be controlled by thyroidectomy with iodine management. It is unwise to remove a normal thyroid from middle-aged cardiac patients—and probably from those of all ages—as this merely adds myxedema to the heart trouble.

Cardiac patients call for careful, *individual* study and management in *every* case, and if this is given *early* we can approach the treatment of these cases with a feeling of optimism.

ESSENTIAL HYPERTENSION

By Alfred W. Adson, M.D., F.A.C.S.,
Rochester, Minn.

Prof. of Neurosurgery, Mayo Clinic

Fifteen percent of all people have more or less hypertension; and twenty-three percent of all persons more than fifty years old will die of the direct or indirect effects of this condition. Whether hypertension is a disease or a symptom, it kills people. In 85 percent of the cases the condition is "essential," and in the other 15 percent it is the result of diseases of the circulatory organs, the thyroid, the adrenals, or some other organ.

The essential cases may be grouped as:

- (1) *Mild*, the blood pressure becoming normal after rest; (2) *moderate*, with slight to moderate sclerosis of the retinal vessels; (3) *moderately severe*, with angiospastic retinitis; and (4) *severe*, with retinal hemorrhages.

In these cases there is no increase in the cardiac output, nor in the volume or viscosity of the blood. It has not been proved that there is an excess of pressor substance in the blood; nor is there any proved relationship between hypertension and alcohol, tobacco, or a protein diet. *The hereditary factor is important.*

Treatment

1.—Put the patient to bed for a time, taking the blood pressure every hour day and night, to find out if this measure is of real value.

2.—Do not frighten the patient by giving a bad prognosis (telling him he will have a "stroke," etc.); and make no more tests than are absolutely necessary.

3.—Reduce the patient's weight, if he is

obese, or take measures to prevent the development of obesity, by diet.

4.—The results of giving vasodilators are transitory and of little value.

5.—Use sedatives (barbiturates) with care, intelligence, and discretion.

6.—Insist that the patient rest and avoid the stresses and strains (particularly emotional and mental) of life as much as possible—that he *budget his energy*.

7.—Surgery, in the form of ganglion resection (sympathectomy), from the sixth dorsal to the second lumbar vertebra, with partial adrenal resection ($\frac{1}{2}$ to $\frac{1}{2}$ of the gland or glands), is helpful in some cases in Groups 2 and 3, but will not cure all. Patients in Group 1 do not need it, and those in Group 4 rarely respond. Only those in Groups 2 and 3 who show a fall in blood pressure after an intravenous injection of Pentothal-sodium (or three 3-grain doses of Sodium Amytal by mouth) are suitable for operation. In these, the lowest pressure recorded after giving barbiturates, will be about the pressure obtained by operation. The best results following operation are seen in young people.

THE SINUSES AND ORGANIC DISEASE

By Robert F. Ridpath, M.D., F.A.C.S.,
Philadelphia, Pa.

Prof. of Laryngol. and Rhinol., Temple Univ.
Sch. of Med.

The upper respiratory tract and the ear are parts of the body and affect the whole system. Toxemia and hematogenous infections are common, with secondary foci anywhere in the body, and with acute local inflammatory reactions. In all such cases a complete study of the blood and spinal fluid should be made; also x-ray and ophthalmoscopic studies; and a complete family and personal history should be taken. A family history of sinus disease is common, probably indicating a hereditary lack of immunity.

Sudden unilateral or bilateral blindness is not uncommon in chronic sphenoid disease, and the cause must be recognized and treated early. In acute cases, orbital involvement frequently occurs.

The symptoms in sphenoid disease may be due to closure of the ostium of the sinus, with an anaerobic infection causing a vacuum, which is relieved by simply opening the sinus and admitting air.

Infections of the stomach, appendix, and gallbladder, and other gastro-intestinal conditions, may be traced to sinus infections; and so also may various deeper respiratory infections—"chronic tuberculosis" with negative sputum; chronic bronchitis; etc.

To treat patients with asthma without a thorough nasal study is folly. The sinuses have been largely overlooked, while we look

for trouble in the teeth, tonsils, and gastro-intestinal tract.

If the nose is at fault in infectious arthritis, the trouble is probably in the maxillary sinus.

Pericarditis, endocarditis, and myocarditis are frequently of sinus origin; and the neural tissues may also be involved.

True meningitis, of nasal origin, is 100 percent fatal; but cases of meningismus often recover. In this condition the infection may enter the skull through the cribriform plate of the ethmoid, through the frontal sinus lymphatics, or through the sphenoid sinus.

LOW BACK PAIN

By Alan DeForest Smith, M.D., F.A.C.S.,
New York City

Clin. Prof. of Orthoped. Surg., Columbia
Univ. Col. of P. & S.

Cases of low back pain are troublesome, and are frequent in industrial practice. Sometimes the patient is malingering, but we must not assume that this is the case.

These patients must be completely undressed for examination. What is the patient's posture? Does he walk and move freely, or does he protect his back? Is "lumbar scoliosis" present? Test him by bending in four directions. In the prone position, study the bony landmarks for deformities, spasms, and tenderness (the last is of least importance), and test by hyperextension and rotation of the hip. In the supine position, test the extension of the hip, keeping the knee stiff.

The lumbo-sacral joint—the junction of the S-curve of the spine and the movable and immovable parts—is affected as often as is the sacroiliac joint.

We must remember myositis and arthritis, alone or with mechanical disorders; also tuberculosis and osteomyelitis of the spine. Fracture of the lumbar spine is not uncommon.

Always make routine neurologic tests and, if these are at all suspicious, make a complete neurologic examination. A spinal-cord tumor may be present.

In males, think of the prostate; in females, of the gynecologic conditions; examine these organs and, if diseased, treat them.

Roentgenograms should be made antero-posterior; antero-posterior-diagonal; upward from below; and lateral, and carefully studied. The nearer the sacral angle approaches 90°, the greater the strain.

The structure of the lumbar vertebrae and their relations with the sacrum and ilia must be studied carefully and with a knowledge of normal anatomy. Evolution is shortening the movable spine by moving the pelvis upward, and this leads to developmental anomalies—the sacrum may have 4, 5, or 6

vertebrae, or there may be partial syntheses—but not all of these produce symptoms, though they *may* do so, as the strain on the parts is greater.

The sacro-iliac joint is solid and firm. Pain in it may be due to *arthritis*, rather than to undue mobility. If the pain is severe, put the patient to bed on a *hard, rigid* mattress—a soft bed will make it worse; then apply heat and intelligent massage. When better, prescribe exercises, belts, etc. These cases require a long course of *conservative* treatment to effect a cure, and about 5 percent of them will require a surgical lumbo-sacral fusion.

ALLERGIC DISEASES

By Robert A. Cooke, A.M., M.D., F.A.C.P.,
New York City

Asst. Prof. of Clin. Med., Cornell Univ.
Med. Coll.

Allergy is a new name for "idiosyncrasy," and depends upon sensitization—abnormal cellular antibodies. Some of these antibodies are demonstrable by passive transfer, but most of them are not.

Sometimes the clinical symptoms correspond with the skin tests; sometimes not. In the former class of cases, immediate reactions are the rule; in the latter, delayed reactions. Any group of sensitized cells may react, according to their nature and location. Allergens may be absorbed from the air, by ingestion, or from chronic foci of infection.

The family and personal history will generally contain a story of allergy. We must study the occupation, the environment and the patient's contacts. Allergic reactions rarely start violently, but develop slowly and progressively. We must look *carefully* for foci of infection, and will find 90 percent of them in the teeth, tonsils and sinuses, if we use the x-rays and the nasopharyngoscope faithfully.

Clinical tests are of great value. If the patient has symptoms when at home, and none when he is away, one can be reasonably sure that the trouble is due to local contacts. Feeding tests are slow and laborious, but are more reliable than skin tests, except in cases of bacterial sensitization, where they are useless.

The *leukopenic index* has not fully demonstrated its value and reliability, but seems highly promising. The first cell count should be made with the patient fasting; then he should be fed the food to be tested; after a short period, another count should be made. If the leukocyte figure is the same or has risen, that food is not an allergen; if the count falls, it is.

In *hay fever*, tree pollens are specific; grasses and ragweeds are not so. Treatment should be given *perennially*. Determine the optimal dose of the anti-allergen, and then give it every two to four weeks throughout

the year. Some patients are cured after three or four years of such treatment.

In perennial vasomotor rhinitis, skin tests are positive and the cause can usually be removed. Hyperplastic rhinitis, with polyposis and sinus disease, is usually also allergic. We must search out all immediate and contributory causes and clear up anatomic deformities and foci of infection.

Asthma is frequently caused by a chronic focus of infection in the upper respiratory tract—sinuses, etc. In these cases, surgical correction must be *complete*, if results are to be obtained, and the earlier it is carried out the better. Skin lesions, such as dermatitis, eczema, and lupus erythematosus, may also be due to foci of infection.

PSYCHIC FACTORS IN PEPTIC ULCER

By George Draper, M.D., New York City
Asst. Prof. of Clin. Med., Columbia Univ.

Coll. of Phys. & Surg.

The *person* who develops peptic ulcer is more important than the ulcer itself. He is the common denominator of the disease. "It is not the stomach, but the man who is ill."

The human being is a *whole*, not a mere congeries of parts. Different kinds of people are especially susceptible to different diseases. We should train ourselves to recognize the various types on sight, by a conscious intellectual process, rather than sense them intuitively, as good doctors have always done. A person's expression is partly due to the physical (hereditary) conformation of his face and figure; but the more important factor in expression is the individual's emotional status.

Peptic ulcers occur in males, or in females of the masculoid type. Gallbladder disorders occur in females, or in males of the feminoid type. Maleness and femaleness are not absolute, but *relative*, attributes. Every individual is essentially androgynous—a mosaic of male and female qualities, any of which may be more or less prominent and may vary from time to time.

Violent, destructive emotional outbreaks—fear, anger, jealousy, and the like—frequently cause exacerbations of the symptoms of peptic ulcer. There seems to be a center, in the region of the thalamus, which initiates or controls emotion and from which the emotional discharge comes; but the manifestations are shaped by the individual's memory pattern and by the structure of his symbolisms, without his being at all conscious of that fact.

Peptic ulcer is, then, a *part* of the *personality* of the sufferer, and is determined by the immediate emotional conditions of the time.

The greatest hope in psychobiologic studies is the general education of parents in their relations with their children.

MENORRHAGIA AND METRORRHAGIA

By John R. Fraser, M.D., C.M., F.A.C.S.,
Montreal, Can.

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of Med.

Next to carcinoma, unusual hemorrhages are the most common cause of serious trouble in women. If organic changes are found in the pelvic organs, the cause is easy to determine; if not, this may be difficult. Such hemorrhages may be due to anatomic lesions, such as carcinoma, myoma, cervicitis, pregnancy conditions, malpositions, etc.; to idiopathic or functional conditions; or to constitutional conditions not associated with the pelvic organs.

The endocrines have been overworked, of late, in the diagnosis of irregular hemorrhages. The menstrual cycle has been well worked out: Estrin is present in the first half of the cycle, and progesterin in the last half. The anterior pituitary regulates both the follicle and the corpus luteum. The trouble is not due to inflammation of the uterus, but to hyperplasia, probably the result of an excess of estrin and a deficiency of progesterin.

Minor thyroid changes may upset the menstrual cycle. A "slight pregnancy"—tubal perhaps—may be present in any woman who is not senile, and should be ruled out.

Infections of the pelvis, of low grade, may persist after pregnancy, causing hyperplasia of the uterus, endometrioses, polypi, etc. Carcinoma and ovarian tumors should always be considered. Young girls who live unintelligently are frequently anemic, and this may be a constitutional cause of hemorrhage.

We must consider the age of the woman who is having menstrual disorders. Young girls who have adolescent hemorrhages are generally of the masculine body type, with small, hard internal organs. They are often helped by heavy doses of iron, sometimes combined with thyroid. The use of radium or radical surgery should be avoided, except as a last resort. In nubile women, irregular hemorrhages can generally be traced to some disorder of pregnancy or labor. In women past the menopause, we should look especially for carcinoma and ovarian tumors.

GERIATRICS

By Irving S. Cutter, M.D., Chicago, Ill.
Dean and Asso. Prof. of Med., Northwestern
Univ. Med. Sch.

There are hundreds of thousands of elderly people whose powers should be preserved to the end. There is no need for them to fall into senile decrepitude. The mind's activity does not depend upon physical robustness, and these people can contribute to society until they are eighty or ninety years old; think of Titian, Edison, Weir Mitchell, Oliver Wendell

Holmes, and many others. We need the fire and enthusiasm of youth and the energy of maturity, but we also need the wisdom that comes only with much experience.

Old age is not a disease, but a process of ripening, and physicians should give more thought to keeping old bodies in good working order, to house the ripened minds. We should advise our elderly patients that, with advancing years, they must meet the new situation—become an interested part of the audience, rather than actors on life's stage—and find useful activities and hobbies consistent with their physical abilities. Moderation and conservation of energy must be learned.

Heredity gives the type of germ-plasm which largely determines longevity. Old age is *natural*, though most young people do not recognize that fact. The middle-aged must begin to formulate a philosophy of life, if they have not gained it in youth—which is better.

Elderly people should keep in touch with the young and give them the benefit of their wisdom, by teaching them the uselessness and danger of anger, and suchlike.

The physician who neglects the old is no credit to his profession. We should learn the physiology and biology of age and adapt our ministrations to the altered metabolic and other functions. Changes in disposition should also be considered and met.

Most elderly people die of circulatory disorders. Precordial pain calls for rest in bed. Digitalis, in small doses, may be given for years, if needed; but if the heart is ticking along fairly well, *let it alone*. Be careful with morphine in the old. A certain amount of hypertension is "normal" in these patients, and we must not disturb them by discussing it. The declining power of the heart muscle may actually preserve life.

Many old people eat too much, so that intestinal toxemia is common and needs attention. Enemas of physiologic saline solution, or of oil, are safe and satisfactory. Senna, compound licorice powder, and calomel and soda, in broken doses, are good laxatives. Milk and milk products (especially sour milk) are good. Do not fill the intestines of the old with rubbish. Vegetables must be carefully cooked and prepared. Alcohol (an ounce or two of whisky, two or three times a day) adds to the comfort and energy of the old, and tobacco is a great satisfaction to many.

Small doses of desiccated thyroid are a great help to many old people. Bronchitis and bronchiectasis are common, and when present, reduce the patient's weight; put on an abdominal belt; and give potassium iodide. We must learn how to handle the prostate with intelligence and safety; and we must

keep our old patients up and around and as active as is practicable.

Life's greatest achievement is to grow old happily and helpfully, and keep interested in people and in things.

FRACTURE OF THE NECK OF THE FEMUR

By John J. Moorhead, B.Sc., M.D., F.A.C.S.,
New York City

Prof. Clin. Surg., N. Y. Postgrad. Med. School

Fractures of the neck of the femur and of the os calcis are still surgical problems; the others are pretty well solved.

The pathognomonic signs of fracture of the neck of the femur are: (1) Inability to elevate the leg with the knee held stiff (this is the best); (2) pressure in Scarpa's triangle elicits rigidity like that of the abdomen in a case of acute appendicitis; (3) the fascia lata is lax. In any joint injury showing deformity and disability, think of fracture first, and of dislocation only when fracture is ruled out.

The patient with a fracture of the femur neck is a poor case for any surgery. Put all patients to bed, at first, with pillows under both knees; then apply adhesive plaster to above the point of fracture, make traction with a sandbag, and keep them so for from 5 to 7 days, so they can get used to what is coming and to test their resistance to it. This is good treatment, no matter what may be done later.

Permit no unsupported weight-bearing for from 8 to 12 months after injury, but do not be a slave to the calendar. Test the patient and see what he can do. Does pounding on the heel (with the knee held stiff) or on the trochanter cause pain? Does movement of the leg, especially circumduction, cause pain? If not, and if the patient can lift his heel off the bed, he is ready to try weight-bearing, no matter what the x-rays may show as to union.

Use Evipal, intravenously, as the anesthetic in fractures and other traumatic surgery. Do not use chloroform. Leave all fractured limbs in exactly the opposite position from that in which they were found, and hold leg fractures in place with a splint extending from the toes to above the umbilicus.

Operative treatment with pins is often disappointing in these femur-neck cases; but under Evipal anesthesia one can make a two-to three-inch incision over the great trochanter and feel, with the finger, whether the fragments are in proper position.

THE ELDERLY CHRONIC HEART PATIENT

By Cary Eggleston, M.D., New York City
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Med. Coll.

The patient past 55 or 60 years, with impairment of the myocardium, is different from the younger heart patient, both in etiology and treatment. The problem is not entirely related to the heart, and we must deal with

the allied conditions, such as gastro-intestinal symptoms, whether these are due to cardiac impairment or to arteriosclerosis.

We must exclude organic diseases of the digestive organs by a careful examination; and we cannot generalize on treatment. If hydrochloric acid is deficient, give the dilute acid with meals. If this does no good, try diet, carminatives, etc., empirically. For the sake of the heart we must control tympanites; but we must not become crystalized on dietetic fads. The diet should be simple and well borne by the patient. Small, frequent meals are generally best.

If the stomach shows real or false intolerance to digitalis (generally false), give other members of the digitalis group, in small doses and camouflaged. The newer preparations are valuable here. Scillaren, for instance, is not a suggestive name.

Attacks of paroxysmal auricular fibrillation are of no great significance unless they cause real distress. They do not bring on congestive failure. If it seems advisable, give quinidine for short periods, but not as a "ration," because it loses its good effects. It is better to use it as a prophylactic, on the appearance of premonitory symptoms.

One can often diminish the symptoms of congestive heart failure, even if they cannot be entirely controlled. If complications are present—hypertension, angina, etc.—digitalis may aggravate the symptoms. Give Aminophyllin and mild sedatives (barbiturates), watching for signs of idiosyncrasy.

The patient with congestive heart failure needs encouragement and reeducation in a proper way of life. It is he who must be responsible for his conduct, because he must live with his bad heart. The physician can point out the right path, but the patient must walk it. This is most important. Every case is an individual problem.

Rest is indispensable, but it can be overdone, because it reduces the circulation, thus increasing the danger of thrombosis and lowering muscular tone. Each patient should have individually adjusted activity, beginning with passive motions and slowly increasing to active, up to the limit of his tolerance.

GASTRO-INTESTINAL ALLERGY

By Walter C. Alvarez, M.D., F.A.C.P.,
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Patients who have symptoms of gastric ulcer, but no x-ray findings or other physical signs; also those suffering from cholecystitis, diarrhea, mental dullness, and depression, may be sensitive to some food, such as milk, eggs, chocolate, etc.

These patients must be put on a fasting regime or elimination diets, to find out the

cause. Some refuse to do this or they cheat—they suffer from "Fox's disease" or are plain damned fools. In these cases the patient must cooperate wholeheartedly with the physician in the necessary detective work.

The **elimination diet** begins with nothing but maple sugar for a couple of days; then cautiously add lamb, rice, butter, sugar, and canned pears, because these are very rarely allergens. If this diet is effective, results are prompt—24 hours or so. Then one can add one food at a time (gelatin, barley, arrowroot, baked apples, toast, etc.), watching carefully, until digestive symptoms appear again. This suggests that the last food added is the offender, and the patient can lay off it for a few days and then try again, to make sure. Then he can go on trying other foods to discover other offenders, if any. Many a "blue Monday" is caused by eating chicken on Sunday.

Sometimes a patient will get along well with one allergic insult, but two simultaneously—eggs plus fatigue, or pollen plus pork—will cause a blow-up.

Skin tests are a nuisance, are frequently wrong, and give the patient ideas. These elimination diets will sometimes work "miracles" and make enthusiastic patients—build practice.

DIFFERENTIAL DIAGNOSIS OF CHEST PAIN

By John A. Oille, M.D., Toronto, Can.
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In examining the chest one must have a *fixed plan* of procedure and follow it, in order that nothing may be missed. Ask questions about the exact location and character of the pain. (Never record pain as "precordial." State the *exact location* and extent.) Does it run up or down? (Anginal pain may run up, but not down.) Does it shift or radiate? Is there pain in other parts of the chest or of the body, and if so, where? (Other pains may be of the same origin—the pains of spondylitis have bizarre distributions.) What is the duration of the pain? Does this vary? Is it affected by exercise? (Anginal pain lasts about 5 or 10 minutes.) When did the pain

begin? (If it has been present for years, it is not of cardiac origin.) Is it constant, or are there periods of relative or complete freedom from it? What is the character of the pain? (It is *sharp* in cardiac cases.) Is it worse when in bed or when sitting up? (The pain of spondylitis is worse when in bed.) Is it affected by movements, positions, or other circumstances? (Anginal pain is worse after meals and in the cold.)

If a patient is short of breath on slight exertion, that fact is just as serious a symptom of disease—perhaps more so—as in pain. It should be easy to make a diagnosis of *coronary thrombosis* from the history alone, though 35 percent of these patients have no pain at any time. There are seven points to note: (1) angina; (2) dyspnea on exertion; (3) pain on effort, coming on gradually and reaching a crisis; (4) delayed fever; (5) other circulatory symptoms; (6) embolism; (7) changes in the electrocardiogram, especially in the T wave (make a series of several tracings).

We may classify chest pains into two groups: those due to diseases of the chest wall; and those connected with visceral disorders.

1.—Diseases in the Chest Wall.

- A. Spondylitis.
- B. Neuritis, including shingles.
- C. Diseases of the vertebrae.
- D. Local diseases (mastitis; cancer; etc.)
- E. Idiopathic conditions.

2.—Visceral Diseases.

- A. In the pleura.
 - a. Pneumothorax (spontaneous).
 - b. Pulmonary embolism (the symptoms are much like those of coronary occlusion).
- B. Mediastinal tumor.
- C. Esophageal disease.
- D. Disorders of the stomach and gall-bladder. (The more the pain goes up over the chest, or is bilateral, the more likely it is to be of cardiac origin.)
- E. Cardiac disorders.
- F. Paroxysmal tachycardia.
- G. Neurocirculatory asthenia (?).
- H. Angina pectoris.

GROWING UP

No matter how sophisticated and grown up a boy of seventeen may feel, he is a simple and callous child until he has been away from the schoolhouse cloisters; until he has worked at a job in order to subsist, made money and spent it, lived alone or among strangers, built or fashioned something with his hands; until he has felt, directly or sympathetically, trouble, fear, grief and pain; and until he is able, in some measure, to comprehend that misery, uncertainty and irony are ingredients of human life.

—FARNSWORTH CROWDER, in *Hygeia*.

Benzedrine in Paranasal Sinusitis

(A Study of 306 Cases)

By J. Allan Bertolet, M.D., Philadelphia, Pa.

SOME five years ago I made the first report on the clinical use of Benzedrine (benzyl methyl carbinamine),¹ which was, at that time, a new vasoconstrictor of proved potency

gic rhinitis and bronchial asthma, are usually complicated by disease or involvement of one or more of the nasal accessory sinuses. Most of the extreme discomfort encountered during a "cold in the head" is due to blocking, by swollen, inflamed mucous membrane, of the ostia of one or more of the accessory sinuses, with diminished ventilation, usually acute intrasinus infections, and occasionally an extremely painful sinus-vacuum complex. With such a broad definition of sinusitis, the diagnosis is chiefly founded on the general clinical impression, and the response to treatment will vary widely.

Many patients require surgical correction of existing anatomic obstructions and gross

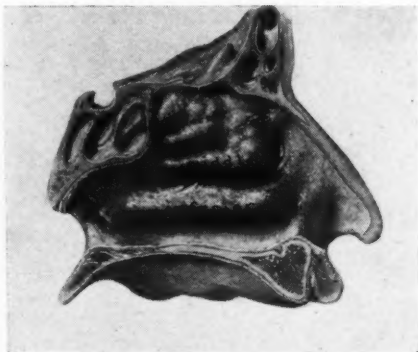


Fig. 1.—A sagittal section of a normal skull.

and with the added characteristic of volatility. In conjunction with other methods of treatment, beneficial results were reported in 122 cases presenting various types of rhinologic complications.

Since that report, studies by other investigators 2, 3, 4, 5 have confirmed these findings and demonstrated further the clinical efficacy and safety of the drug.

When Benzedrine was introduced in inhaler form, it seemed reasonable to suppose that, because of its diffusibility as a vapor, it should permit wider distribution to narrowly occluded cavities and ducts than either aqueous or oil solutions.

When nasal passages are so completely occluded as to deny entrance even to vapor, more radical treatment is required; but when even partial aeration is possible, the vapor of benzyl methyl carbinamine comes in contact with the swollen membranes and accomplishes shrinkage, with rapid and prolonged improvement in the aeration of the nose and paranasal sinuses.

Because of the growing interest in Benzedrine, it has seemed proper to report the results obtained in a larger series of cases exhibiting nasal and sinus involvement. Four years' experience has confirmed the original impression of the efficacy of this drug.

Frequency of Sinus Involvement

In my experience, practically all head colds and most diseases of the upper respiratory tract as a whole, including hay fever, aller-

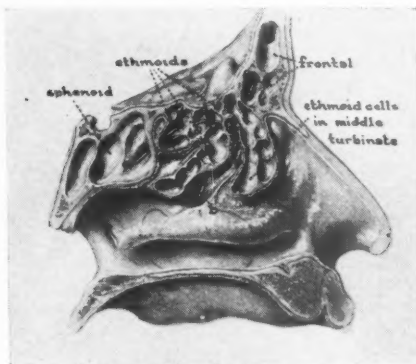


Fig. 2.—Complete exposure of the intricate cellular inter-communications and correlations of the frontal, sphenoidal and maxillary sinus relations.

gic rhinitis, but even after such operative interference they may have occasional recurrences. A large percentage of patients presenting themselves to the rhinolaryngologist, however, are those with recurring exacerbations of sinus attacks, who prefer nonsurgical treatment as long as they obtain relief.

Anatomy of Sinus Structure

Because of the difficulty of approach to the complicated sinus structures, again emphasized in the recent monograph by Kasper⁶, a volatile vasoconstrictor should be of particular advantage in the treatment of paranasal sinusitis. Before presenting the end results in the 306 cases treated, it seems reasonable to show graphically the anatomy of the rhinologic tract. The illustrations (Fig. 1, 2, and 3) reveal the anatomic difficulty of reaching these remote areas adequately by instrumentation or ordinary vasoconstrictors.

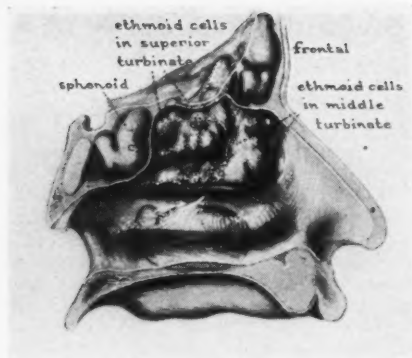


Fig. 3.—A semi-diagrammatic composite of Figs. 1 and 2.

Benzedrine, in inhaler form, used in the early stages of a nasal infection, frequently helps to abort or shorten conditions that would otherwise proceed to more serious complications. And when such complications arise, as in a great percentage of cases they do, Benzedrine is still valuable in maintaining a maximal shrinkage and drainage in the intervals between office treatments. Furthermore it has no deterrent action on the cilia—a point of importance, since Proetz has shown that drastic shrinking agents and antiseptics are often harmful to ciliary action⁷.

Clinical Results

The 306 cases reported here have been divided into two groups: Those exhibiting definite clinical evidence of acute or chronic paranasal sinusitis; and those with an acute rhinitis presenting transitory symptoms of sinus inflammation. Results are based upon objective improvement, as observed by examination during office treatment, and the subjective improvement as reported by the patient. Consideration was given to the following points: (1) Relief from nasal congestion and accompanying discomfort; (2) maintenance of maximum aeration and drainage; (3) shortening or aborting of acute attacks; (4) prevention of further sinus involvement.

Acute and Chronic Sinusitis (Group I)

This group comprises 129 adult cases. The clinical diagnosis in 59 was confirmed by transillumination, roentgenologic examination, and antral lavage. Nearly all presented more or less general involvement of all sinuses. These were all adult patients, and are divided into three classes, for the purpose of more accurate study.

Class A comprises 32 patients who were operated upon for correction of deviated nasal septums, curettement of ethmoidal cells, nasal polypi, removal of turbinates, and two had bilateral Caldwell-Luc operations. Aside

from periodic office visits, they received no other treatment after operation than the use of benzyl methyl carbinamine in inhaler form not oftener than once an hour, plus an occasional saline wash when it seemed necessary to cleanse the nasal fossae of accumulated secretions.

Results in Group I (A)

Excellent	87 percent
Fair	5 percent
Poor	8 percent

The "poor" group were those with multiple polyp growth, necessitating much destruction of nasal mucous membrane during the surgical exenteration.

Class B: Of the non-operated cases, 26 were decidedly in need of operative correction and, being long accustomed to more drastic medication, were suspicious of any substitute for their customary therapeutic measures. Under the circumstances, the relief afforded by Benzedrine in these cases is impressive.

Results in Group I (B)

Excellent	57 percent
Fair	36 percent
Poor	7 percent

Class C: The remaining 61 cases were the type of patients seen most frequently, with an acute, subacute, or early type of sinusitis, coincident with delayed recovery from an acute rhinitis, but not requiring surgical treatment. The results in this group, as far as the observed attack was concerned, were as follows:

Results in Group I (C)

Excellent	67 percent
Fair	26 percent
Poor	7 percent

Acute Rhinitis (Group II)

The second part of the study included 178 patients presenting a so-called "cold" or acute rhinitis, accompanied by swollen mucous membranes, diminished aeration of the paranasal sinuses, pharyngitis and frequently an associated otitis media in one or both ears. About 32 percent complained of symptoms indicating complications of frontal, ethmoidal, and maxillary sinus block. It is in this type of case that Benzedrine, used early, in conjunction with general medication tending to promote catharsis, diuresis, mild sedation, and analgesia, does much to promote comfort for the patient, by affording better ventilation of the intranasal spaces.

Results in Group II

Excellent	83 percent
Fair	14 percent
Poor	3 percent

In this rather large and scientifically uncontrolled group, consideration must be taken

of the fact that unsupervised home treatment was sometimes indulged in. This may have had some slight influence—unfavorable or otherwise—on any accurate interpretation of the effect of Benzedrine.

Summary

Head colds and most disease complications of the upper respiratory tract are generally accompanied by involvement of the accessory sinuses.

The complex structure and inaccessibility of the sinus area make adequate treatment by instrumentation or liquid inhalants extremely difficult and uncertain.

Three hundred and six (306) cases, exhibiting some degree of paranasal sinus involvement, were treated with the vapor of a Benzedrine inhaler, and my earlier findings

as to the efficacy and desirability of this method were confirmed.

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329 So. 18th St.

GENERAL THERAPEUTICS IN CHILDHOOD

Do not give a purgative in every acute infectious disease as the initial treatment. Ascertain first if it is indicated.

There is no therapeutic agent that is perfectly harmless in all cases. All healing efforts require the most careful circumspection.

Drugs have only a secondary place in the therapeutics of children, but when they are clearly indicated they should be prescribed. Light and fresh air are probably the most powerful therapeutic agents we have. Do not think that a little cool breeze playing over a patient with fever is harmful. Do not be so afraid of taking "cold." Stuffsy rooms and too much clothing predispose to "colds."

Remember that most diseases of childhood are favorably influenced by the use of hydrotherapy. The pediatricist must thoroughly grasp the technic of the many ways of using water, externally and internally. The scientific use of water is the most essential part of general therapy in infancy.

Teach the baby good habits from the beginning. Do not be afraid of a little firmness in your orders.

Study the various forms of physical therapy as applied to children. Most cases of general debility and anemia can be very much improved by graduated exercises and gymnastic movements.

A change of climate or a change of residence is one of the most powerful roborants that is known. A trip into the country or to the seashore—or, in the case of those who live in the country, a change of air, even a short distance—often makes a tremendous difference in nutrition.

Avoid all unnecessary medication in infants and children; study the effect of physical therapy.

The best antipyretic is the cold pack or cold bath; coal-tar antipyretics are sometimes useful, but they should not be continued for too long a time. The wet pack, hot or cold, is the most readily used; but the full bath can be even more advantageously employed.

There are some children, it should be remembered, who do not react very well to cold water, whose circulation in the skin is very poor in every fever, and who have very high temperatures on slight causes; in those, antipyresis is often fraught with difficulty. Warm baths are sometimes successful.

It is a mistake to give an antipyretic regularly every three hours; give one good dose when the fever is very high, not more than twice a day. It will do most good in this way. Do not continue coal-tar antipyretics for more than two days in any prolonged fever.

Remember that coal-tar antipyretics not only depress the heart somewhat, but their continual administration in some way interferes with those processes that overcome infection. Children must receive an antipyretic in larger doses relatively than the adult in order to produce the same antipyretic effect.

Do not insist on antipyretic measures in every fever; a moderate fever seems to be part of the body's means of ridding itself of an infection. If the child seems fairly comfortable with a temperature of 103° F., let it alone.—JOHN ZAHORSKY, A.B., M.D., in "Golden Rules of Pediatrics."

PHYSICAL AND OFFICE THERAPY AND RADIOLOGY

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FOR OFFICE THERAPY

RUSSELL A. WINTERS, M.D.

Short-Wave and Ultra-Short-Wave Therapy in the United States

By David H. Kling, M.D., Los Angeles, Calif.

RADIO or short-wave therapy has been in extensive use in this country for the past two years. Its introduction was marked by the clashing convictions and interests of two camps. The enthusiasts advanced extravagant claims; skeptics declared it a dangerous fad. Contributing to the confusion were the claims of superiority for one wave-length over another. The value of the short-wave therapy is slowly being found to lie between these extremes, and for the present may be summarized as follows:

1.—Short-wave therapy is definitely not a passing fancy. It has almost entirely supplanted diathermy.

2.—Its application is simpler and more flexible than that of diathermy. This alone has increased the range of therapy, especially in acute conditions (carbuncles, osteomyelitis, etc.), where tenderness prevents the strapping on of electrodes.

3.—The distance between the skin and the electrodes has also made possible the application on parts of the body like the face, neck, arm pits, perineum, etc., over which diathermy electrodes can be adjusted only with great difficulty.

4.—Use can be made of various modalities not possible in diathermy, like unipolar application, cuff electrodes, and the electro-

magnetic field applied by the use of solenoids of different types.

5.—The apparatus for local treatment can be adjusted for fever therapy with but little extra equipment as, for example, a treatment bag or rubber blankets.

Dangers

On the other hand, the danger of burns exists, as with diathermy, if no attention is paid to the amount and concentration of the current, especially when electrodes are applied close to pointed or unequal surfaces, such as the nose, ear, finger tips, and the protuberances of the knees and ankles (Kobak¹, Kling and Berg², Krusen³, Bierman⁴). I have called this the "acro effect." Sweat accumulation may lead to the concentration of current, resulting in superficial burns. The originally advertised treatment, with the patient clothed, is especially conducive to this danger and should be entirely abandoned.

Late after-effects have not been found in any one of over 200 cases which were carefully checked for a year or two after treatment. Neither were they found in experimental animals. Burns, contrary to the general opinion, do not offer any special difficulty in healing, and scars, in both human beings and animals, were normal within two years after healing (Kling⁵).

This, however, does not preclude the occurrence of aggravations of some conditions subjected to short-wave therapy. For instance, arthritic pains have been aggravated in some cases. Some patients feel depressed under the influence of high-frequency waves. It is obvious that, in these cases, short-wave therapy as a whole is contraindicated, or the particular technic should be modified.

Indications

Short-wave therapy is indicated in the following conditions:

1.—In acute infections, such as carbuncles, furuncles, and sweatgland abscesses it was found beneficial in a majority of cases. Applied early it often aborts the development of an abscess. In later stages it accelerates the opening and drainage of abscesses. However, one must guard against the possible spread of infection, and, at the first sign of such spread, surgical procedures should be instituted.

2.—Good results in deeper-seated infections, like osteomyelitis, sinus trouble, middle ear and nose infections, pyorrhea, granuloma of the teeth, prostatitis, and pelvic conditions, have been claimed by a number of authors and partly substantiated by my own experiences. Schliephake⁶ had astonishing results in empyema and pneumonia, and also, to some extent, in tuberculosis. I have seen some good results in cases of asthma, hay fever, and cholecystitis. The presence of pus in any of these diseases, however, is a contraindication for short-wave treatment. Here the surgical principle of drainage at the earliest date should be insisted upon.

I have treated about 500 cases of different types of arthritis. In some forms, such as gonorrheal arthritis, arthritis of smaller joints, and myositis, the results were good. I have, however, come to the conclusion that this treatment is not specific for arthritis, and the range of favorable therapy has not been greatly advanced over that of diathermy. In practically no case have I seen any influence on joint effusions.

Schliephake, Lebessny⁷, and other authors claim that, while a particular wave-length may be indifferent or even dangerous in a certain condition, another wave-length may have a marked therapeutic effect. Schliephake emphasized the necessity of treating acute conditions with ultra-short waves. Lebessny claimed that actinomycosis has been rendered worse by fifteen-meter waves, and then cured by four-meter waves. My own experience, in a small group treated by wave-lengths of six and eighteen meters, has shown some superiority of the shorter wave-length (Kling⁸). A large amount of material is now being compiled.

Effects Other Than Heat

Some authors (Lebessny and Weissenberg⁹) have emphasized the presence of specific

effects of high-frequency oscillations on the biologic material, besides heat. They applied minimal amounts of energy, which produced scarcely any heat. Generally, in this country, claims of specific effects have been discarded, and the heat effect is emphasized exclusively. An objective and critical review of the evidence published until now shows that, while the specific effects are not proved beyond doubt, there are some phenomena, both experimental and biologic (sedimentation, inactivation of diphtheria toxin, etc.), which cannot be explained entirely on the basis of heat effect. I regard it as a mistake at this stage to deny the possibility of other effects and close the door to further investigations. Moreover, the emphasis placed on heating misleads many to the applying of massive doses. In some conditions such technic produces ill effects, while slight doses may be beneficial. I found that, in neuritis, neuralgia, and disturbances of the peripheral circulation (Raynaud's disease, Buerger's disease, arteriosclerosis), the doses should be very weak, with scarcely any sensation of heat. In these conditions I found treatment in the electromagnetic field, with special solenoid electrodes which I have described previously⁵, to be more efficient than that with condenser plates.

In summary, it may be stated that short-wave therapy has attained a wide field of application in medicine. Great progress has been made in the construction of safe and efficient machines giving different wave-lengths.

Conducted with proper care, short-wave therapy is a reasonably safe procedure.

While specific effects have not been established, emphasis on the heat effects should not mislead the physician to try to use maximum heat in every condition.

Further research on the effect of different wave-lengths, development of dosage indicators, and refinement of technic are required.

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The Physician and the Engineer

By Fred V. Collins, M.A.S.A.L., Highland Park, Mich.*

THIS article is intended for the promotion of better relations between the medical and engineering professions and for the furtherance of greater direct cooperation in the alleviation of ailments of the human race through development of new and better equipment.

In the past there has been a great deal of opposition by the medical profession to any suggestions offered by engineers, as they were considered to be of the laity and, therefore, should have no, or relatively little, medical knowledge. Close cooperation and collaboration between a physician and an engineer seemed, to some people, unethical. This, it is believed, is due only to the popular public conception of a doctor. It seems that the dear public had an idea that a physician had to be a bespectacled figure in a white coat, who during an examination, especially with a stethoscope, issued forth a lot of mysterious OHs and AHs and thumped one rather soundly on the chest and back, looked very wise and handed out some little pink pills or wrote some hieroglyphics on a piece of paper to be taken to a drug store.

The physician of today is gradually getting away from this type of dramatic acting. It was all very good in the days when the people themselves were uneducated, but nowadays even the very young have a good idea that babies are not brought by storks. This advancement in public knowledge opens the door for greater progression and close cooperation with the engineering profession. The public in general now realizes that a doctor cannot know medicine and engineering also; and that it takes a person trained in engineering to design things properly. If a physician has an engineer as a colleague, he is now thought of as a very progressive type of man. The patients understand that, if something is to be built or a mechanical problem is to be solved, it is necessary for the one working on it to be on the spot to ascertain all the facts contributing to the solution; and rarely do they resent the presence of one who has not an M.D. degree. Not all engineers are qualified to do this type of work, as it is not their type of engineering and they would not even be interested.

Nevertheless there are a great many who are in this field and are eager to work with the medical profession.

Many of the instruments used by the medical profession today have been designed and developed by engineers, in cooperation with physicians. It would take too much space to mention all these items, but some of the important ones are: ultraviolet generators, infrared lamps, x-ray equipment, diathermy machines, short-wave therapy apparatus, sinusoidal generators, galvanic and ionization units, fever cabinets, operating tables, chairs, stools, cabinets—yes, and even cuspidors and bowls. However, not all of the credit should go to the engineer, as without the progressive physician the engineer probably would not have worked out the medical angle of these items.

If any physician has an idea about some new item, he will do well to get in touch with an engineer; take him into complete confidence, explain the problem thoroughly, and allow him to see the actual need for the item in his practice. Rest assured that the qualified engineer is just as professional and ethical as the physician and will work just as long and just as hard without thought of remuneration as will he. The physician must allow the engineer to be in on the problem, from the beginning to the "cure"—from the examination to the discharge of the patient creating this problem. By this means and only this can the engineer hope to progress systematically through the problem to a satisfactory finish.

I have had the opportunity many times to work with the medical profession, and at no time was there any resentment on the part of the patient due to the presence of one without an M.D. after his name, especially when it was explained that most medical practice is a combination of engineering and medical knowledge and that no one person can ever hope to have mastered both, as there is almost too much to learn in each branch alone.

If this article brings about a closer working relationship between the two professions, it has accomplished its task. It is sincerely hoped that physicians will utilize the opportunity to call on the engineers to lend a hand, because the engineering profession will be more than grateful for the opportunity to render a service necessary to the betterment of the health of the human race.

150 Puritan Ave.

*Mr. Collins, the author of this article, is a consulting engineer who gives special attention to electro-medical problems. He has kindly offered his services in this line to our readers. Any questions in his field should be addressed to CLIN. MED. & SURG. and will be forwarded to him for reply. If suitable and of general interest, questions and answers will be published in these pages.—Ed.

NOTES AND ABSTRACTS

The Injection Treatment of Hernia*

THE first essential requirement for success in the injection treatment of reducible hernia is a comfortable, well-fitting truss that will keep the hernia in place under all conditions while the treatment is in progress. It is not enough that the patient says that his truss is all right, it is the duty of the physician to see for himself, and to be able to select and adjust trusses under all conditions and for all forms of hernia. No one make or style of truss is appropriate for all cases, but in general a steel spring truss will prove better for the day, while a web elastic with a springy pad is more comfortable for the night. A truss should be worn both day and night during the treatment, and the truss should *always* be removed or applied *while lying on the back*.

The treatment for an indirect inguinal hernia is as follows: Put the patient on his back on the office operating table in a moderate Trendelenburg position. Clip the hair from the inguinal area over a broad surface. Wash with alcohol, after thorough sterilization of the skin. Put out two sterile glass syringes, preferably of 5 cc. capacity. Place in one of the syringes 2.5 cc. of 2-percent procaine solution, and in the other syringe 3 cc. of the proliferating solution. The procaine-loaded syringe should have a 22-gauge needle, of sufficient length to penetrate the fascia of the external oblique muscle. In an average individual this will be about a 1½-inch needle. In a fat individual the needle should be 2 inches, or even 2½ inches, and sometimes, but rarely, 3 inches long. It must be an exceedingly spare individual who will require a one-inch needle or less. The needle must penetrate through the fascia, but it must not enter the abdomen. It must pass through the fat, as the injection can do no good in the fat tissue and will prove unnecessarily irritating. I have very carefully worked out my own technic to get the depth, and, if the operator will follow this plan, he will find it simplicity and certainty itself.

In each case the first thing to do, before injecting the fluid, is to locate the internal ring, which will be found about midway of the length of Poupart's ligament and about 1 or 1.5 cm. above this ligament. Select a needle that is supposedly long enough to penetrate the external oblique fascia; plunge the needle quickly through the skin just below and inwardly from the internal ring; now slow up immediately after penetrating the skin, and go slowly through the fat. The needle will go through the fat as though

passing through butter, and in this manner, the slightest change in resistance may be observed, and even the sharp needle point will be distinctly felt to strike and penetrate and to pass through the fascia. Dr. Pina says, "The injection should be 3/5 of an inch deeper than the fascia." At this point withdraw the piston slightly, to see if there is any blood arising in the syringe. If no blood appears, inject 2 cc. of the 2-percent procaine solution very slowly. Uncouple the syringe and leave the needle in place, laying over it a little sterile gauze.

After an interval of ten minutes, couple onto the needle, which has been left in place, the syringe loaded with 3 cc. of proliferating solution and inject slowly, by installments, until the entire amount has been introduced. Again uncouple the syringe and attach the procaine syringe with its 0.5 cc. of solution and inject, in order to wash the proliferating solution out of the needle so that the irritating fluid will not follow the needle out to the skin when withdrawing it; then take a small wisp of sterile cotton and press moderately over the needle prick for a few minutes and then touch the needle prick with a little iodine, mercurochrome, bismuth violet or any other favorite antiseptic. Have the patient lie quietly on the table for about fifteen minutes and then place on him his truss, well fitted, and let him go about his business until the next treatment, which is best given in about two or three days.

The next treatment should be given in the same manner, about ¼ inch medial to and lower than the first injection, which is best marked by a tiny dot of adhesive plaster. These little dots of plaster may be used for each injection until seven or eight have been used, when it is better to remove them and thoroughly sterilize the skin, so that there will be no risk of tiny infections from skin excretions confined under the plaster. By this time one will know where the injections have been given and can commence the markings anew, if desirable.

After the entire inguinal canal has been eliminated, some reinforcement around the internal ring and possibly the external ring may seem desirable. When it becomes apparent the hernia has been eliminated, the patient is instructed to wear his truss both day and night for one month and, for a second month, in day time only. Then, if all is well, trusses are entirely discarded.

Until one has become fairly expert in this treatment and, indeed, it is perhaps well as a settled policy, to insist that the patient call

*Med. World, July 28, 1936.

for an examination at two-, three- or six-month intervals, so that statistics may be reliably checked. This is good practice in any type of surgery.

For five years I have used the Pina-Mestre solution in the injection treatment of hernia, and it has given me such good results that I have not tried the others.

PAUL T. BUTLER, M.D.

Orlando, Fla.

Look for FACTS AND COMMENTS among the advertising pages at the back.

Treatment of Erysipelas with Ultraviolet Rays

EIGHTY-ONE (81) cases of erysipelas (41 females and 40 males), treated with ultraviolet energy alone, are reported, with only 2 deaths. These 2 deaths occurred in two infants and were the only fatalities in 16 children of two years or younger and 26 total cases in children seven years old or under.

Erysipelas on the face clears up quicker than when it occurs elsewhere. Fewer total erythema doses and fewer treatments are required to reduce the temperature to normal in almost one-half the time (facial cases 3.59 days; 6.5 days for other infections).

Ultraviolet energy should be prescribed in unit erythema doses (E.D.) adaptable to any burner, hot or cold quartz type. Large doses (16 to 20 E.D.) should be given at the first treatment and may be repeated the next day. A child may safely be given from 10 to 16 E.D.—NORMAN EDWIN TITUS, M.D., in *Brit. J. Phys. Med.*, Oct., 1936.

The Basis of Colonic Lavage*

THE claims of colonic therapy for recognition and continued existence rest upon the following premises:

1.—That the colon is a common focus of infection and its lumen a breeding place for a large variety of bacteria.

2.—That toxins, native proteins and bacteria readily pass through the intact mucous membrane of the colon and are taken up by the capillaries and lymphatics.

3.—That the functional threshold of detoxification of the liver is frequently overstepped, permitting these substances entrance into the general circulation.

4.—That the mesenteric lymphatic system becomes overtaxed and inefficient, finally permitting bacteria and their toxins entrance into the receptaculum chyli.

5.—That, as a result of liver damage, portal

stasis occurs, resulting in the shunting of bacteria and toxin-laden blood through the inferior hemorrhoidal veins into the general circulation.

6.—That a symptom complex, variously designated as autointoxication, chronic intestinal toxemia and chronic focal infection, with its many manifestations and complications, thereby ensues.

7.—That the systems and methods of therapy now in general use are inadequate to cope with this condition.

8.—That there is both a need and a demand for a more effective therapeutic regime.

9.—That colonic therapy meets this need more adequately than any other system of therapy at present known.

JAMES W. WILTSIE, M.D.

Binghampton, N. Y.

Get all you pay for. Read and use the ads.

Beware of Undue Specialization

IF we were gifted with a clarion voice which was capable of trumpeting a loud, clear message to physical therapists throughout the land, we think we would choose to broadcast this warning: Beware of undue specialization! We do not mean, of course, that a practitioner should not elect to confine himself to the treatment of this or that class of disease. That is his own personal affair entirely. In these days of division of labor it is, no doubt, the best, if not the only, course to pursue; more or less, at all events. What we are referring to is a different form of specialization.

What we would earnestly warn our readers against is the tendency to become this or that kind of physical therapists, and nothing else, either in viewpoint or in actual practice; to come to look upon this or that form of physical therapy as the be-all and end-all of treatment—a sort of panacea for all the ills that flesh is heir to; to apply it fatuously and indiscriminately, and it alone, to every ailment, and every phase of every ailment, that comes along.

We cite, in this connection, the recent words of President A. W. Rogers, of the Wisconsin Medical Society: "The patient happens to be an entity; a human being, not a case; a subtly interacting creature, who, to be treated with real science, must be studied and treated as a *whole being*. The science of healing is the relief of human suffering. Research is essential to that relief. But it is an aid, not an end. Specialism represents an important advance in the organization and use of knowl-

**Arch. of Phys. Ther., X-Ray, Radium*, Mar., 1936.

edge, but it is an auxiliary, not the fundamental structure of the art of healing."

These sensible words apply to physical therapy, as to any other special mode of treatment. We yield to no one in our enthusiasm for the physical methods of treatment, or in our faith in its scope and future, but the development and success of physical therapy depends upon preserving its proportion. To specialize, in the sense just indicated, is to cripple its usefulness and to kill its future, and this for two reasons: First, because no one mode is a cure-all, and any one mode will fail the man who thus attempts to apply it; second, and more important, because to isolate any method from all others is to break its contact with all those sources of regeneration and development which are the life-blood of every applied science.

R. A. W.

"C. M. & S." is the best medical magazine I have ever seen for the general practitioner. There is more material in it that I can use than in all the other medical magazines combined. General practitioners are not interested in beautiful charts and graphs of the pituitary, thymus, etc., but in material which they can use in everyday work. May the good work continue.—R. D. W., M.D., Pennsylvania.

BOOKS

Kerley: Recent Advances in Radiology

RECENT ADVANCES IN RADIOLOGY. By Peter Kerley, M.D., B.Ch. (N.U.I.), D.M.R.E. (Camb.), Assistant Radiologist, Westminster Hospital; Radiologist, The Royal Hospital for Diseases of the Chest; Hon. Medical Editor, *British Journal of Radiology*. Second Edition. With 176 Illustrations. Philadelphia: P. Blakiston's Son & Co., Inc. 1936. Price, \$5.00.

Besides describing the general diagnostic applications of diagnostic radiology, the au-

thor discusses recent advances in the radiologic technic and diagnosis since the issue of the first edition.

The remarkable advances in calcium metabolism and endocrine diseases have necessitated extensive additions and alterations to the chapter on bone diseases. The chapter on the lungs has also been considerably enlarged and the chapters on the heart and biliary and renal tracts have been entirely rewritten. Numerous other changes have been made in the text throughout the book.

So far as possible, all important radiologic appearances are described.

This is a handy and concise volume for radiologists. It does not include therapy.

Holmes & Ruggles: Roentgen Interpretation

ROENTGEN INTERPRETATION. A Manual for Students and Practitioners. By George W. Holmes, M.D., Roentgenologist to the Massachusetts General Hospital and Clinical Professor of Roentgenology, Harvard Medical School; and Howard E. Ruggles, M.D., Roentgenologist to the University of California Hospital and Clinical Professor of Roentgenology, University of California Medical School. Fifth Edition, Thoroughly Revised. Illustrated with 243 Engravings. Philadelphia: Lea & Febiger. 1936. Price, \$5.00.

When the average general clinician gets hold of an x-ray film, his first thought, if he is not something of an expert in roentgenology, is, "What does it mean?" This book was prepared to answer his question, and the fact that it has gone to a fifth edition suggests that it has answered it satisfactorily to many.

Here are explained, in terms clear to a beginner in roentgenology, the various technics of that science and the difficulties he is likely to encounter, with suggestions as to how to interpret the films showing all the ordinary conditions, once they are made—a practical book, in the best sense of that word.

Roentgenologists will find it very useful; but it is practically indispensable to busy practitioners, because the illustrations are so clear and the explanations so lucid, that even a tyro in this sort of thing can promptly get an idea what it is all about. In these days when the x-rays are so important a part of diagnosis, no ambitious physician can afford to be wholly ignorant of the meaning of the films produced from his patients.

WHAT MAKES A PROFESSION

If there is such a thing as a profession, as a concept distinct from a vocation, it must consist in the ideals which its members maintain, the dignity of character which they bring to the performance of their duties, and the austerity of the self-imposed ethical standards. To constitute a true profession there must be ethical traditions so potent as to bring into conformity members whose personal standards of conduct are at a lower level, and to have an elevating and ennobling effect on those members.—American Professional Pharmacist.

A LIVING FOR THE DOCTOR

(The BUSINESS of Medicine)

Living with Ourselves

By George B. Lake, M.D., Waukegan, Ill.

If any of us were offered the opportunity of drawing up a set of specifications for a person who was to live with us as our closest companion, certain characteristics would almost inevitably be included in the list. Such an individual, in order to "wear well" through the years and not bore, irritate or enrage us at times, would have to be honest, sincere, cheerful, courageous, self-reliant, helpful, unselfish, loyal, courteous and sympathetic, reasonably intelligent, tolerant, optimistic and possessed of a true and reliable appreciation of the relative values of things, which we call a sense of humor.

Many persons would probably want to add other qualifications to this list, according to their individual desires and needs, such, for example, as physical beauty or activity, gaiety, musical skill, high mental capacity and suchlike, but the matters in the first category are basic and would probably be included in all such hypothetical specifications.

Strangely enough, each one of us, whether we realize it or not, has the power to decide what kind of a person we will associate with most intimately throughout life, and to make that decision a living fact, if we are willing to pay the price—for all things of value must be paid for, in one way or another; that is one of the Laws of Nature.

From the cradle to the grave, and far on beyond that, there is one person with whom you must associate through every day, be it fair or stormy, and through the dragging hours of heart-shaking nights; one from whom you can never, by any possibility escape—yourself. However close to us our parents, our brothers and sisters, our wives, husbands or children may be, they are mere casual acquaintances compared with ourselves. At work or at play; in failure or success; in joy or despair, there is one who rides us like the Old Man of the Sea or lends a helping hand in every emergency; who depresses or inspires, bores or entertains us—our own ego.

And the building and molding of that ego is our own privilege, our own job, our own responsibility. If it is not the kind of com-

panion we truly enjoy, no one is to blame but ourselves; we have bungled the job somehow and somewhere, through ignorance or inertia. But at any time we have the ability to grasp the sorry thing, and "remold it nearer to the heart's desire."

If we would require the qualities I have mentioned in an outside companion with whom we would have to live, is there any sound reason why we should be able to live comfortably and happily with ourselves, if we do not possess them?

Let us consider these basic characteristics a bit, to see why they are basic, and how, if they are, we can set about developing them in ourselves, supposing we are at all deficient in any of them.

Honesty and sincerity go together, the former word being generally used in regard to thoughts and words and the latter when speaking of actions.

Note, first, that honesty applies to thoughts as well as words, especially when we are training ourselves to be satisfactory companions for us, though most people are quite satisfied if they are reasonably honest in words alone.

Honesty does not mean saying to every one with whom we may associate everything that, in our ignorance and blindness, we believe to be true. He who would do that would be a social outcast very promptly and properly. It means, as I see it, in our relationship with others, the strict avoidance of any word or act which might mislead any person about a matter of any importance, to his damage and our profit. To my mind, for instance, there is no turpitude in telling one's hostess that one has had a good time, even if one has been bored, nor in giving a complimentary and encouraging word to one who may need it, even though, in so doing, one may not believe that he is stating the exact facts.

If the thing we would say, in our spurious "honesty," is not kind and helpful, it is probably not true; and if we withhold the damaging word for a while, we shall probably realize its innate falsity before very long.

In our relationship with ourselves, however, we must be honest in our unspoken thoughts. It is not enough that we abstain from speaking and acting falsely; we must guard ourselves against *thinking* untruly, not only about others, but about ourselves also. That means that we must neither under nor overestimate our own purposes and powers, but look them straight in the eye and deal with them on the basis of what we see.

Sincerity means doing every job we undertake in just the way we would want it done by someone else, if we were paying him for doing it.

Cheerfulness is looked upon by many as being of minor importance in the scheme of things, but I assure you that, in our human intercourse, it is one of the cardinal virtues. If we train ourselves always to speak cheerfully, no matter how we may feel at the moment, that line of conduct will soon become a pattern of the soul, so that we shall never feel otherwise—at least for long—whatever may befall. But to be cheerful we must have that degree of knowledge which enables us to face the present and the future without fear.

Every earnest student of the Ancient Wisdom, in any of its presentations, realizes the importance of helpfulness without being reminded of it, but not all realize so clearly that self-reliance is a necessary prelude to all service. We can not lift another until we have learned to stand reasonably firmly on our own feet. We cannot teach another until we, ourselves, have learned the lesson we would impart.

In choosing a companion, we want to be sure that we can depend upon him at all times—that we "know where he stands"; not what he will think about any subject in the future, for new knowledge may modify his opinions, but how he will behave toward us under any and all circumstances. Loyalty to ourselves and our ideals, while we hold them as such, is as important in our inner life as is loyalty to friends in our outer contacts. We must be able to be sure how we will behave in any set of circumstances.

Sympathy and courtesy always go together. If we truly understand and feel with another we cannot treat him in a manner other than kindly; and if we make a regular practice of meeting everyone with unfailing courtesy, it will not be long until we begin to see through and under any roughness which may pertain to the exteriors of men and women and perceive the sons of God who had, therefore, been rather effectively hidden.

Everyone who thinks at all requires, in a close companion, some degree of ability to consider any problem in the cool light of intellect and to arrive at a decision upon it without an undue degree of emotional bias and prejudice. This is, perhaps, even more important in our relationships with ourselves than in those with others. Prejudice and emotional intolerance are an opaque curtain which shuts out the glorious light of God's good world.

Those who *know* are aware that there is a Plan, for men and for nations, and that whatever transpires is a part of that plan, and therefore inherently good, however disastrous it may appear on the surface. The pessimist is overborne by fear, the child of ignorance, and spreads gloom about him like a blight. No one would willingly choose him for a close companion. How do you look out upon the world? If it does not seem to you so fine and worthy a place to reside that you can impress that conviction upon others, you need to learn more about it.

As for discrimination, the true and basic sense of humor, it is the divine salt which seasons life and preserves it against sourness and decay. Without it no man or woman can be wholly sane and sound; with it, many other matters can be forgiven or overlooked. It is the first upward step on the glorious path that leads to true liberation, because it rests upon that knowledge of truth that makes us free.

If we would be the kind of people who can live with ourselves with pleasure and satisfaction, we must make it a daily practice to take stock of ourselves honestly, to see if we are the kind of people we could live with happily if we were someone else. Unless we are the sort of individuals whose companionship others will eagerly seek, we shall presently find that we are not fit company for ourselves.

To keep our egos from growing into wild, ungovernable things, a curse to ourselves and everyone with whom we come in contact, and mold them into helpful and reliable friends, is a tremendous undertaking, but not beyond the power of any one of us if we definitely will to do it. It means continual vigilance, rigid self-examinations (often bitter) and frequent denials of thoughts, words and acts which may, at the moment, seem highly desirable. Truly the price of such accomplishment is high, but the thing acquired is worth all of it, for "what shall it profit a man if he gain the whole world and lose his own soul."

NOTES AND ABSTRACTS

Why Am I a Doctor?*

WHY am I a doctor? Did you ever ask yourself this question? Perhaps it will not be amiss, once in a while, if we examine this basic question. It will be good for us to indulge in what might be called a "periodic self-examination."

Certainly we are not doctors because of the money that is in it. Generally speaking, our companions of early years who selected business pursuits have outstripped us in gathering together the collection of objects which represents monetary success. Why did we go into medicine? Why do we stay in medicine? Why do we live for, fight for, and sometimes die for medicine?

Glory? Where is the romance in our pursuit, for those who follow it? It is said that every ship is a romantic object but the one we are sailing in, and it may also be said that medicine has romance for those who do not practice it. We work in the quiet of the sick room, or the hospital; we walk daily with troubled humanity. Our satisfaction can derive only from the knowledge that we have performed our obligation to heal the sick, in this way paying the debt we owe for the accumulated knowledge and experience of the ages which has been made available to us.

Perhaps this feeling of responsibility is an ideal which we do not always reach, but is it any less our ideal? We can say, without fear of contradiction, that the great majority of doctors are imbued with the purpose to discharge this obligation, and I think the time has come when the public should know—should be definitely told—that the most important thing it should inquire about, when selecting a doctor, is whether he is genuinely interested in his calling, loves his profession, and is, not only intent to attain ability as a physician, but feels a responsibility to advance the capacities of the medical profession as a whole. This is, as you know, the main object of medical societies. The man who has such a goal as this in mind as a destiny, is a man who can be fully trusted with the lives of men and women and children.

You have joined your county medical society (or should do so). You consider that when you were given the right to practice medicine, you assumed an obligation to do your part to see that medicine, as a profession, preserved its integrity. The only way integrity can be attained or retained is to

work for it. When you join your local medical society you work for the integrity of yourself and the group. You render yourself open to the criticism of your peers. You say, in effect, "I intend to behave myself, to put the interest of my patient above my own, to observe all the other provisions of the oath of Hippocrates, in letter and in spirit. And not only do I intend to do this, but by joining the county medical society I have to do it—I lay myself open to penalties if I do not."

I think the public should be told that a doctor who is a member of his county medical society is a better doctor on this account. I think a patient should ask his doctor, if he is not a member of the medical society, why he is not a member. It is possible, of course, that a physician may be of the highest rank, and not be a member. There is nothing compulsory about it; but as I go over in my mind the names of the physicians who, I find, have lived so that their excellence is beyond possible question, I do not think I can name one who is not a member of his county medical society.

The world today is facing deep and important problems. Confusion abides in the minds of men. Quacks are abroad plying their trade in the realm of economics and sociology, as well as in that of medicine. Large groups of people are assuming to know that which they do not know. They are contemptuous of the experience of the past, and of the experience of individuals; they decry special skills; they substitute rhetoric for reason. So we have another obligation, just as basic as the medical obligation, and that is a social obligation. We must reach out and interest ourselves in these questions which are quite outside medicine, but which need a generous skepticism to counteract what often seems to be a pathologic optimism. We have not repaid our debt to society when we merely heal the sick. In some respects, the well need healing, too, if we are not to have all our values, all our superiorities broken down. "One man," Mr. Dooley said, "is not only as good as another, but a damned sight better." There are no experts left. There are only simplifiers. And what are we doing about it?

This is not a matter of politics. The same kind of thinking is to be found everywhere. The public is coming to believe that it is capable of exercising its opinion, its judgment on difficult technical problems, with no knowledge, no experience. Further than this, it expresses that opinion in response to a

*Talk delivered at a meeting of the Eighth District Branch of the Medical Society of the State of New York, at Buffalo, October 15, 1936.

catch-word. It does not even make the effort to think a problem through on a rational basis, using the information, however inadequate, which it has in its possession. These are symptoms of grave danger. Sooner than we think, we may see the complete triumph of mediocrity. And there is only one way in which we can make effectual remonstrance, and that is at the polls whenever occasion offers. Yet I am told, by those who have made inquiry, that the proportion of doctors who vote is only one in three. Need I say that this is a disgraceful record? Need I urge you to consider its significance deeply, when so many public policies are formulating which may advance or retard the healing art? You know what various candidates stand for, and in general, if not specifically, what type of legislation may be expected of them. Your knowledge, your judgment, is ineffectual unless you vote.

After you have asked yourself why you are a doctor, ask yourself another question, a larger question. Are you a citizen, in fact rather than in name, if you fail to exercise the obligations of a citizen in exchange for its advantages? If we work in our own societies to preserve the integrity of medicine, but fail in the larger society of American affairs to preserve the integrity of our civilization, efforts on the one part may easily be frustrated by inaction on the other.

FLOYD S. WINSLOW, M.D.

Pres., Med. Soc. of the State of N. Y.
Rochester, N. Y.

State Medicine in Britain

THE system of State Medicine, inaugurated in 1911 with a great flourish and with much enthusiasm, today has few defenders, even among its so-called beneficiaries. It has—and this is not only my own opinion, but the publicly stated opinion, on many occasions, of doctors, coroners, hospital officials, and others who are engaged in working the system—reduced the practice of medicine from a profession to a trade, made slaves of doctors and chemists (druggists—*Ed.*), and has bred in the people a dangerous reliance on hurried and inefficient doctoring, which has caused a serious decline in the national health average.—JOHN S. STEELE, of London, Eng., in *Chicago Sunday Tribune*, Oct. 11, 1936.

Medical Abstracts and Bibliographies

FREQUENTLY medical men find it difficult to obtain references in past medical literature which will help them in preparing a medical paper. They would like such references if they could get them.

The largest medical library in the United States is in the Surgeon General's office. The second largest, we believe, is in the New York Academy of Medicine. The services of the Academy library are available at all times. The American Medical Editors' and Authors' Association, through its Director, Dr. Harold Hays, 133 East 58th Street, New York City, can arrange to supply references or abstracts on any medical subject. This service is available to any physician. Write to Dr. Hays for information if you are interested. The cost will depend upon how much information is desired. The original bill rendered by the Academy will be sent to the physician making inquiry. The Association makes no charge. This is but one of the services this Association wishes to render to medical authors.

BOOKS

Adams: Medico-Legal Aspects of Fractures

MEDICO-LEGAL ASPECTS OF FRACTURES. By Edward Adams, M.D., Lt. Col., U.S.A., M.R.C., etc. With 64 Illustrations and a Complete Anatomical Chart. New York: The American Physician, Inc. 1936. Price, \$2.00.

The author is a well-known medico-legal expert, with a thorough experience of litigation and courtroom procedure. This knowledge, added to that of the systemic and functional effects of injuries, justifies his rôle of adviser in estimating degrees of disability in cases in which compensation is sought.

It is well known that medical men who give evidence in compensation cases may honestly differ because they do not look at things from the same point of view. The author's attempt to form a common ground for measuring the amount of disability, by offering practical standards, should do much to eliminate discrepancies of medical opinion in the courts.

As a doctor may at any time be called to testify as a medical witness or expert, a book like this, in which all phases of the medico-legal aspects are discussed, is almost a necessity. Though it is confined to fracture cases, the general medico-legal information is applicable to all kinds of compensation litigation based on disability. The amount of disability is clearly given here for all types of fractures.

As a book of medical reference in the case of fracture injuries and their complications, the work should be of very great value to lawyers handling compensation claims and endeavoring to evaluate the earning capacity of an injured individual.

THE SEMINAR

"A MONTHLY POSTGRADUATE COURSE"

(NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted.

Discussions should reach this office not later than the 5th of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, Waukegan, Ill.)

Problem No. 11 (Diagnostic)

Presented by G. M. Russell, M.D.,
Billings, Mont.

(See CLIN. MED. & SURG., Nov., 1936, p. 554)

RECAPITULATION: A woman, in her twenties, had a very severe attack of influenza while pregnant five months. She had epistaxis to such an extent that the nostrils had to be plugged every day, but she recovered and carried the child through to term.

Two years subsequently she was taken sick with chills at 2 P.M. each day, followed by high fever, and finally sweating and defervescence, so that the temperature was normal each morning. This occurred for four or five days, when the temperature began descending, so that at the end of two weeks it was normal throughout the twenty-four hours. She had headache, insomnia, and some nosebleed, and complained of slight pain in cardiac region.

The physical findings were negative, except for slight tenderness over the gallbladder, elicited by a consultant who diagnosed cholecystitis. No leukocyte count was made, as she was sick in her own home.

Requirements: From the description, what was the *probable* diagnosis? What further examination would you suggest?

Discussion by E. C. Junger, M.D.,
Soldier, Iowa

This problem is of interest because of the normal termination of pregnancy after a severe attack of influenza with severe epistaxis; but I doubt that this illness had any connection with the chills and fever now under consideration.

Cholecystitis can hardly be blamed for daily chills and fever for a week, without more marked acute symptoms of the gallbladder. The pain about the heart could be due to the infection causing the chills and fever. Congestion of the spleen can cause referred pain in the chest.

My diagnosis is *malaria*, and a blood exam-

ination for the plasmodia should have been made during the disturbance. Quinine and arsenic are indicated to combat the infection and to build up the resistance of the patient, who will have future attacks if this is not done, providing I am correct in my diagnosis.

Discussion by Howard P. Benjamin, M.D.,
Omaha, Nebraska

The description of this case is rather vague. Malaria and acute miliary tuberculosis may be taken into account. Also recurrent influenza from a focal infection, such as sinus infection, etc. Influenza bacilli may be dormant in various places of the body for a considerable time. From the few findings, I should say *bronchopneumonia* is the probable disease.

Further examination should be made of the chest, and roentgenograms of the chest and sinuses; white and red blood-cell counts; and blood serum, blood culture, and agglutination tests.

Discussion by Dr. James A. Dungan, M.D.,
Greeley, Colo.

This looks like "mountain fever." Cases of malaria being particularly negligible as to number, in the mountainous regions, I would preferably explain the periodicity of the young woman's symptoms—headache, fever, chills, malaise, and particularly the recurrence of the nasal bleeding—by that rather indefinite syndrome which, in lieu of a better name, we call "mountain fever." Of course, I assume that the case occurred in the higher altitudes.

No mention is made of jaundice, and I think that cholangitis, either acute or catarrhal, could be ruled out, as the tenderness in the gallbladder was only slight. The brevity of the illness rules out typhoid, but not malaria. A recurrence of influenza after two years is a quite common phenomenon, and it may have done so here, both pain in the heart region and the tenderness already referred to being a part of the focal involvement.

**Discussion by George B. Lake, M.D.,
Waukegan, Ill.**

As a therapeutic problem, this one would be wholly unsatisfactory, because, unlike Problem No. 7 ("C.M.&S.," July, 1936, p. 353), there was no immediate and pressing emergency and ample time was available for a full study of the case, without which the treatment could not have been planned intelligently.

As a diagnostic problem, however, it is quite all right, because physicians are faced, every day, with the question of how much laboratory study should be done upon a patient in order to make a diagnosis, without carrying out unnecessary procedures which will add to his expenses without giving him value received. For this reason the consideration of such a problem as this is decidedly pertinent.

It seems to me that we should have been given more details of the routine physical examination, instead of saying merely that "the findings were negative." This woman had a "high fever," and we should have been told how high it went and what the pulse rate was at the height of the fever, because this relationship frequently gives important information.

With the periodically recurring fever, preceded by a chill and followed by sweating and complete defervescence, the first things one would think of would be malaria and septicemia; and even though the former is very rare in Montana, this would call for an immediate and complete study of the morphology of the blood, or at least an absolute and differential leukocyte count and a careful search for the plasmodia of malaria.

If these two conditions could be ruled out, the next step would be to consider the differential diagnosis of the other continued or prolonged fevers—typhoid and the paratyphoids, typhus, prolonged influenza, secondary syphilis, psittacosis, brucelliasis (abortus or Malta fever), and tularemia. Of these the most probable would be typhoid, brucelliasis, and tularemia, in about that order.

The epistaxis, headache, gallbladder tenderness, and defervescence by lysis suggest typhoid, and agglutination tests for the organisms of the diseases mentioned would be called for, as well as a study of the blood morphology and blood cultures. A careful history as to contact with possibly infected milk or domestic animals, parrots or other birds, and rodents might rule out Malta fever, psittacosis, and tularemia.

In typhoid, a more complete statement of the physical signs might show a pulse slow in relation to the temperature, and dicrotic; the blood-cell count would reveal leukopenia (or, at least, an absence of leukocytosis);

with a relative lymphocytosis; the agglutination (Widal) test and the blood culture would probably be positive for *B. typhosus*, but might not be so, even in the presence of typhoid fever.

It would seem probable that the tests here suggested would have been sufficient to establish the diagnosis, and the one most likely to be present, on the basis of this meager history appears to be typhoid fever, with septicemia, malaria, and the less common continued fevers following along in order.

If the problems submitted contain more details they will be decidedly more valuable for study.

Unless Dr. Dungan means, by "mountain fever," something different from the usual understanding of that term—symptoms arising from the more or less sudden entrance upon very high altitudes—it is difficult to see how that diagnosis would fit the picture. Moreover, Billings is not in the highest part of Montana, and the patient appears to have lived there for some time.

Solution by Dr. Russell

In this case another physician was called in consultation on the fourth day of the disease, and made a tentative diagnosis of gallbladder disease.

I had with me a flask of blood-culture medium, and the consultant agreed that it would be well to make a culture.

The next day I took a Rehfuß duodenal tube to the patient's home and drained her gallbladder. The bile proved to be entirely negative.

The following morning the health officer reported that the blood culture was positive for *typhoid bacilli*.

There was nothing typical about this case, but the fact that a blood culture was made shows that we had both thought of typhoid as a possibility. Microscopic blood studies were not made, because I assumed that leukocytosis would be present and malarial parasites absent. The patient was in her home, and laboratory studies would have been difficult to carry out.

Problem No. 1—1937 (Diagnostic)

**Presented by H. J. Kooiker, M.D.,
Hill City, Minn.**

H. B., age 19 years, reported at the dispensary June 20, 1936, complaining of weakness, tiredness and general malaise. He said that he had been struck on the left side of the neck by the crossarm of a telephone pole a few days before, and since then he had not felt well. Otherwise the history was apparently negative.

Examination failed to reveal any evidence of injury on the left side of the neck, but

(Continued on Page 45)

CLINICAL NOTES and ABSTRACTS

Hydrochloric Acid in Endemic Influenza

INFLUENZA is an acute, highly contagious, infectious disease, characterized by suddenness of onset, fever, headache, marked prostration, respiratory symptoms, and a tendency to severe pulmonary complications.

The bacillus of Pfeiffer seems to be most generally accepted as the causative organism, with others as possible contaminating invaders. On these points there is considerable contention.* Immunity is relative, because several attacks may occur in a lifetime of an individual.

The incubation period may be from several hours to several days, but generally it is about 24 hours. The onset is sudden and violent, in the majority of cases, with chilliness, fever, headache, pains in the back and legs, and intense prostration. Later, respiratory, gastro-intestinal, circulatory, and other signs develop. There are probably few diseases in which the initial symptoms are more violent.

In fully 90 percent of the cases, the eyes are infected and painful, and lachrymation accompanies the conjunctivitis. Sneezing and coryza may occur; rawness of the throat, with cough and substernal tenderness, gives evidence of the early pharyngitis and tracheobronchitis.

In addition to the symptoms mentioned, I have found a constant diagnostic point of great help—a bluish-red discoloration of the tonsillar pillars and a similar injection of the pharyngeal mucosa.

Once satisfied of the diagnosis, and with no pulmonary complications present, I proceed with the intravenous injection of 10 cc. of hydrochloric acid, 1:500. I can then assure the patient that the pains will disappear, as well as all other subjective and objective symptoms, within from 12 to 24 hours. This has been the case in all uncomplicated cases I have seen in the past two years (and these have been quite numerous). In addition, I believe that complications are eliminated by this simple procedure.

The patient is always left with the following prescription:

*Many of the soundest investigators now look upon influenza as a virus disease, in which bacterial infection is secondary.—Ed.

℞ Codeine Sulphat.	gr. i—0.064 Gm.
Ac. acetyl salicyl.	5 ½—2.000 Gm.
Phenyl salicyl.	5 ¼—1.000 Gm.
Phenacetin.	5 ¼—1.000 Gm.
Caffeine citrat.	gr. ii—0.128 Gm.
M. et ft. Capsul.	No. VIII

Sig: One every 3 hours, with a hot drink of lemonade or tea with a tablespoonful of whiskey.

He also receives ½ grain (32 mg.) of calomel and a capsule of 3 grains (200 mg.) of Nembutal for the night, after which he sleeps well and perspires freely.

Often, upon recovery, weakness is noted for some time after. This is due to adrenal depletion. I therefore always insist that the patient have the following prescription filled, and it is to be used beginning with the second day of the illness, and until all the tablets have been taken:

℞ Tabs. Protonuclein (R. & C.)
No. 100

Sig: 2 tablets three times a day, before meals.

This preparation is relatively inexpensive, and has been found quite efficacious in the build-up of depleted adrenals.

With the treatment outlined, complications rarely develop, and the patient feels normal in a short time. He is advised to appear at the office in about one week, when foci of infection are sought and eliminated, in order to reduce the possibilities of re-infection, as well as being a part of a periodic health inventory.

T. H. MADAY, M.D.

Chicago, Ill.

Allantoin in Wounds and Indolent Ulcers*

AMBROISE PARÉ first made the observation that wounds in which blow-flies deposited their eggs healed with unusual rapidity. Others, through the centuries, made similar observations; but it was not until 1929 that Baer first deliberately planted maggots in wounds to hasten healing.

This method is now standard surgical

*A. J. of Surg., Nov., 1936.

practice, but presents certain difficulties and disadvantages, such as the possibility of introducing infectious material with the maggots; the repugnance and discomfort which many patients suffer; the difficulty of securing suitable maggots and applying the treatment expertly; the limitation of the method to shallow wounds, where the maggots can find air for their respiration; and the expense of securing a supply of fresh maggots.

In 1912, Macalister described the cell-proliferating properties of allantoin (an oxidation product of uric acid), and reported excellent results following its use in the treatment of chronic ulcers; but as this substance was then a rare laboratory chemical, it never came into wide use.

In 1935, Robinson, of the U.S. Department of Agriculture, discovered allantoin in the excretions of maggots and described its effects in stimulating the healing of indolent and edematous wounds. The Chemical Research Laboratory of The National Drug Company, of Philadelphia, has succeeded in synthesizing pure allantoin by the oxidation of uric acid.

For physicians' use allantoin is offered in the form of a greaseless ointment, containing 2 percent of allantoin, colloiddally dispersed, and 0.5 percent of chlorbutanol, for its antiseptic and bactericidal effect. The ointment is readily available and has been used in a large number of indolent wounds, chronic ulcers (particularly those on the legs), x-ray burns, and similar conditions, many of which have been reported in the current literature. Allantoin is also available in a 0.4 percent solution, for use where this type of application seems to be more satisfactory.

At present it seems highly probable that this drug will rapidly come into wide use in the treatment of infected and slowly-healing wounds; and highly promising studies have been completed of its oral employment, combined with vegetable mucins (okra), in the treatment of gastric and duodenal ulcers and colitis. For this purpose Allantoin-Okra is supplied.

For chronic rhinitis and chronic sinus conditions, allantoin is now available in a water-soluble base, as Allantoin Nasal Jelly.

FREDERICK R. GREENBAUM, D.Sc.
Philadelphia, Pa.

Etiology of Pruritus Ani

PRURITUS ani is a "white collar" disease and may almost be considered a sign of superior intelligence.

From careful studies it appears that irritation of the nerve endings and tactile corpuscles at the anocutaneous line, by inflam-

matory exudate, is the primary cause of the pruritus. Dermatitis of the anal skin is a secondary condition, caused by scratching. A search for inflammatory changes in the anocutaneous region of the anal canal is called for in every early case of pruritus.

In several such cases, immediate relief from the itching has following the injection of a 1-percent solution of Diothane into the anocutaneous line, without any treatment applied to the skin itself.

C. C. TUCKER, M.D., and

C. A. HELLWIG, M.D.

Wichita, Kans.

Intravenous Anesthesia*

INTEREST in the intravenous method of anesthesia has gained its greatest impetus since the introduction of the short-acting barbiturate, sodium n-methylcyclohexenyl methyl malonyl urea (Evipal soluble). It is unfortunate that in its early use the technic recommended was to inject an indefinite quantity of the drug intravenously, remove the needle, and then proceed with the operation. It will be widely recognized, if it is not already, that a safer technic is to administer the barbiturate intermittently as it is needed, following the general principle applied when ether is administered by the open drop method.

Recently a new thiobarbiturate has been developed which seems to me to be a useful agent and one that gives promise of making more widely acceptable the intravenous method of anesthesia. This drug has been called "Pentothal sodium."

A person who is experienced in the intravenous use of these agents becomes rather enthusiastic about them when they are applied properly. They should not be used for long operations which require great muscular relaxation.

The intravenous method should be avoided in most cases if a disease or condition is present which obstructs respiration or may produce symptoms, one of which is dyspnea. It is advantageous to use a preliminary dose of morphine, a barbiturate, and atropine when the procedure is going to take some time (thirty minutes). However, for short procedures, such as manipulation of a joint, reduction of a Colles' fracture, removal of one or two teeth, opening of an abscess, or spinal puncture, no preliminary medication need be given. It has been used for a variety of operations.

The principal sign of anesthesia when these new barbiturates are given intravenously is essentially related to the depth of respiration. If anesthesia is profound, respiration is shallow, and vice versa. In order to make con-

**Ill. M. J.*, Aug., 1936.

ditions as safe as possible for the patient, I have hit on the scheme of using a cotton "butterfly" fastened to the upper lip in such a way that inspiration and expiration of air are indicated by motion of the cotton. If respiration is not arrested at any time, the patient is considered to be in relatively safe condition.

In order to add further to the relative safety of the method, I have incorporated in the anesthetic solution a certain amount of respiratory stimulant. Although this modification of technic is relatively recent, and for that reason only one of the many respiratory stimulants has yet been tried, the results are, to me, encouraging. The present combination is 1 Gm. of Pentothal sodium, dissolved in 20 cc. of sterile distilled water, to which is added 1 cc. of a 25-percent solution of **Coramine**, so that the proportions are one part of Coramine to four parts of Pentothal sodium. The patient's respirations are more visible in the average case when the respiratory stimulant has been used than when it has not been used. The use of a respiratory stimulant is particularly valuable when preliminary medication has been used.

Further refinement of this technic will probably bear on selection of the best anesthetic agent and the best respiratory stimulant that can be obtained; the judgment of the anesthetist will be important as to whether he will use or omit the stimulant for a given patient, and if it is to be used, in what proportion. Such judgment can come only from experience in the use of this technic.

The use of a 5-percent solution of Pentothal sodium instead of a 10-percent solution has practically eliminated the occasional complaint of a sore arm on the part of the patient. This complaint is attributable either to extravascular injection or to hemolysis and thrombosis of a vein; in some cases it is reported that a nerve near the vein has been injured by the needle. When an extravascular injection of the solution has occurred, however, and there is an untoward reaction, the application of moist heat has been beneficial.

Patients to whom these intravenous anesthetics have been given often have tolerated them better than other anesthetics, because there seems to be less nausea and vomiting than even with a gas. The skin remains dry and warm, and it has seemed to me that there was less shock, in many instances, than I might have expected. I refer particularly to cases in which shock has followed previous anesthetization and a surgical procedure, and the surgical procedure must be repeated at a short interval. I do not maintain that there is no shock, but that it appears more

slowly and for that reason can be more easily combated.

I do not recommend that this method be used by inexperienced individuals. I feel that at least they should witness the administration of an intravenous agent a few times before they attempt it. Whenever it is used there should be a justifiable reason for using it.

Pentothal sodium has been used intravenously in 1,644 cases, including 53 operations on the brain and other parts of the central nervous system; 83 operations on the eye; 277 cystoscopic examinations; 58 transurethral prostatic resections; 27 operations within the thorax and 42 within the abdomen; 144 dilation and curettage operations; and hundreds of other more or less minor surgical procedures.

JOHN S. LUNDY, M.D.

Mayo Clinic,
Rochester, Minn.

Look for **THE LEISURE HOUR** among the advertising pages at the back.

Bursitis of the Shoulder

BURSITIS of the shoulder may occur as acute inflammation or it may come on more insidiously. In a case beginning acutely, there is frequently local heat, leukocytosis, and fever. It is my experience that such cases do not tend toward complete recovery without active treatment. The acute symptoms will frequently subside, but there will remain either chronic pain, loss of motion, or both. It is my experience that vaccine or gold-sodium thiosulphate, either alone or together, not only shorten the course of this condition, but materially aid in the restoration of function and ablation of symptoms. Only after recovery is complete should foci be removed.—K. K. SHERWOOD, M.D., of Kirkland, Wash. in *Northwest Med.*, Sept., 1936.

Gynergen in Migraine*

ERGOTAMINE tartrate (Gynergen) was given to 97 patients, for the relief of attacks of true migraine, and in 89 patients who received the drug hypodermically, it checked or aborted 1,042 attacks completely in two hours or less; where this result had occurred once, it never failed to be repeated in subsequent attacks. None of the other ten newer medications tested showed anything like this regularity of favorable effect.

The earlier in an attack Gynergen is given, the better will be the result. The initial hypodermic dose should be 0.25 mg. (0.5 cc. of the ampule solution), and if this dose is effective

*J.A.M.A., Oct. 10, 1936.

within two hours, it should not be increased; if not, it may be repeated after two hours, and if this is necessary, the dose in subsequent attacks should be 0.5 mg. (1 cc. of the ampule solution). A dose of 0.75 mg. should be considered the maximum for any one attack. The patient should lie down for an hour after each of these injections.

A number of patients experience more or less unpleasant symptoms after taking this drug—nausea, vomiting, weakness of the legs, stiffness of the joints, heaviness in the chest, etc. These may be promptly relieved by the hypodermic injection of 1/100 grain (0.6 mg.) of atropine. When these unpleasant symptoms are known to occur regularly, the atropine may be given along with the Gynergen.

This drug is not a cure for migraine, but it can save many patients many hours of severe suffering, which justifies its use. It is not effective in headaches other than true migraine.

MARY E. O'SULLIVAN, M.D.

New York City.

Colloidal Manganese in Furunculosis and Pustular Acne*

OF 134 cases of acne vulgaris, treated with colloidal manganese hydroxide (Collosol Manganese) 91, or nearly 68 percent, were definitely benefited, the average number of 1 cc. injections being slightly under 6, given at weekly intervals.

Even more striking results appeared with 45 cases of furunculosis similarly treated. All of these patients had multiple lesions and many had had recurrent crops. The average number of 1 cc. injections dropped from 5.4 percent, in the acne patients, to 4.8 percent, with 84.4 percent complete clearance or satisfactory improvement. The largest number of cases entirely recovered was in this group of furunculosis patients—32 out of 45 or 71.1 percent.

Very satisfactory but less pronounced benefits were obtained in sycosis vulgaris, pustular folliculitis, rosacea with pustules, and cellulitis.

DRS. E. L. OLIVER and G. M. CRAWFORD.
Boston, Mass.

A Council on Contraceptives

THE flood of commercial contraceptives—jellies, powders, douching-appliances, safe-period calendars, and numerous other devices—calls for the organization of an authoritative scientific body, somewhat along the lines of the Council of Pharmacy and Chemistry of the American Medical Association, to study and evaluate commercial products. While

some of these contraceptives undoubtedly have merit and are being ethically introduced to the medical profession, there are a great many others, often without any value, which are being flamboyantly advertised and exploited. There is need for a body of scientists and clinicians, with adequate laboratory and clinical facilities, to consider this problem carefully, to lay down minimum standards for commercial concerns, and to pass upon the acceptability or non-acceptability of their products.

Biochemical and clinical studies of commercial products have been carried on for some time at the Birth Control Clinical Research Bureau, and reports on a number of contraceptives are now available. The problem, however, is rapidly extending beyond the scope of the Clinic, and must become the concern of a national Council, especially organized for this purpose. This Council will have to study, not only the chemical, physical and clinical value of the various commercial products, but also the manner in which they are being exploited. Manufacturers making extravagant and unwarranted claims should be made to feel the disapproval of birth control centers and the medical profession generally; while ethically conducted concerns should be encouraged and led to improve their products and to develop new ones. The organization of a Council on Contraceptives would be an important forward step in the progress of scientific contraception.—Editorial in *J. of Contraception*, Nov., 1935.

Physiologic Effects of Benzedrine*

WHEN the sympathomimetic amine, benzyl methyl carbinamine ("Benzedrine") was administered parenterally to adult human beings in varying doses, the average rise in systolic blood pressure was 29 mm. of mercury. The height of blood pressure was attained in an average time of 46 minutes, and reached its normal level in from 2 to 8 hours after administration. Orally, in rather large doses (40 mg.), the blood-pressure increases were nearly identical with those after parenteral administration, except that the action was delayed.

Atropine, when combined with Benzedrine, markedly enhances its effects. A parasympathetic stimulant, mechloly, when given with or during the period of Benzedrine action, exerted its depressor effects over a shorter period, temporarily nullifying the action of Benzedrine, without being antagonistic to its continued prolonged action.

Benzedrine has a definite stimulating action on the central nervous system, as shown by

**Med. Rec.*, Feb. 19, 1936.

**A. J. Med. Sc.*, Oct., 1936.

the shortening of Sodium Amytal narcosis. A marked increase in both white and red blood cells, with a lowering of the color index, was found. These increases were apparently mechanical and of no clinical significance. No increase in the basal metabolic rate or blood sugar was observed. Benzedrine showed good effects in lowered mood and in certain fatigue states.

DRS. A. MYERSON, J. LOMAN, and
W. DAMESHEK.

Boston, Mass.

Get all you pay for. Read and use the Ads.

Allergy as the Cause of Frequent Colds and Chronic Coughs in Children*

FREQUENT colds (perennial and seasonal) and chronic coughs are often manifestations of allergy. The diagnosis of allergic disease is made on (1) a family history of allergy; (2) previous allergic history of the patient; and (3) a present history of allergic symptoms.

A complete allergic study is necessary. All foods, plants, epidermals, and other substances in the patient's environment should be tested by scratch and intradermal technic.

The most constant symptom of nasal allergy is a "stuffy nose which is always worse on arising in the morning." Chronic cough, occurring especially during the early morning hours, is a preasthmatic symptom. Differentiation should be made between the allergic and infectious cold.

Treatment, on the basis of elimination and specific desensitization of pollens, epidermals and dust, gives excellent results in children. The prevention of asthma is possible by adequate treatment of frequent colds and chronic coughs of allergic origin.

NORMAN W. CLEIN, M.D.

Seattle, Wash.

Dressing for Acromioclavicular Dis- location

TWO strips of adhesive plaster are cut, each 3 inches in width, one 26 inches and the other 48 inches in length. A pad is placed in the axilla and a smaller one over the outer end of the clavicle. The first strip is applied by grasping both ends and, with firm pressure, placing it over the outer end of the clavicle down onto the back and chest. The second strip is started anterior to the clavicle, runs backward over the outer end, then down around the ulna, thence upward and over the

outer end of the clavicle lifting upward as this is applied. The success of the dressing depends upon the placement of the plaster around the upper forearm; the lateral margin should be 2 inches from the tip of the olecranon. This serves to give the forearm the rôle of a lever which directs its pull over the clavicular end. No sling or support is used for the hand. The dressing should be continued for 4 weeks.—R. A. BENSON, Lieut., M.C., U. S. Navy, in *U. S. Nav. Med. Bull.*, July, 1936.

Evipal Soluble by Rectum*

WHEN Evipal Soluble is given rectally as a preanesthetic, 0.2 cc. of 10-percent solution is given for every pound of body weight. Thus, a patient weighing 150 pounds would receive 30 cc. (150x0.2) of a 10-percent aqueous solution. The patient is usually asleep within five minutes. There is no rectal irritation. Alcoholics and those accustomed to vigorous exercise may demand larger amounts. The anemic, undernourished individual should receive a little less. A rectal dose of 30 cc. will produce quiet sleep in over 80 percent of the cases; in the others, a restful disposition. In either case, supplemental anesthesia, inhalation, local or spinal, will be needed to complete the narcosis for a major operation, although supplemental anesthesia may not be required for such operations as opening an abscess, setting a fracture, reducing dislocations, etc.

Relaxation is better following Evipal Soluble than with any other preanesthetic medication. When properly supplemented, the relaxation of muscles is equivalent to that in spinal anesthesia. It is safer because its action is controllable and reversible with Metrazol and carbon dioxide and oxygen. As Evipal Soluble by rectum affects only the sensory nerves and has no effect whatever on the heart, it is an unusually safe anesthetic.

In this series of patients, none of the physiologic antidotes mentioned were found necessary, even when the amount of the drug far exceeded the standard dose of 0.2 cc. per pound. Other barbiturates should not be employed in association with or prior to Evipal Soluble. This anesthetic may be given by a trained nurse in the patient's own bed. No contraindications are recognized for its use.

The patient should have a sodium bicarbonate enema two hours previously, although this is not always necessary. From forty to sixty minutes before the rectal instillation, $\frac{1}{4}$ grain of morphine is injected subcutaneously. A 3-Gm. dose of Evipal Soluble is dissolved in 30 cc. of distilled water. The dose for the individual patient is calculated and the required volume of solution is drawn into a

**Northwest Med.*, Sept., 1936.

**A. J. of Surg.*, June, 1936.

glass syringe. A small infant catheter is snugly fitted to the syringe, then with the patient comfortably placed on the left side, the catheter is lubricated and inserted into the rectum about 4 inches. The entire injection is given rapidly. An additional 10 cc. of water are instilled into the rectum.

JAMES T. GWATHMEY, M.D.

New York, N. Y.

Bile-Salt Therapy in Liver and Gallbladder Disease*

A GROUP of 63 patients—22 with cholelithiasis, 16 with cholecystitis without evidence of stones, and 25 with symptoms of gallbladder dysfunction without evidence of actual gallbladder disease—was treated with bile salts. Marked benefits were obtained by a plan of medical treatment consisting of a low-fat diet and the administration of a pure bile-salt preparation having a high concentration of desoxycholic acid. The salt was administered in 5-grain capsules given before or during meals. Patients were started on one capsule three times daily and the dose was increased until regular bowel movements were obtained without cathartics. One patient required 75 grains a day for several days before the bowels began to move, but most patients found the optimum dose to be two to three capsules three times a day. The most marked improvement was seen in the control of digestive symptoms and constipation. The best results occurred in the group of patients consisting of persons with hepatic insufficiency, biliary dyskinesia, and other functional disorders of the liver, in which the secretory mechanism seemed to be sluggish.

BERNARD D. DOSENAK, M.D., and
KENNETH G. KOHSTADT, M. D.

Indianapolis, Ind.

Twelve Social Hygiene Axioms

1.—Syphilis and gonorrhea are serious communicable diseases and should be looked upon as menaces to community health.

2.—Syphilis and gonorrhea, like tuberculosis, are familial diseases and are spread by the intimate contacts of family life.

3.—The protection of family and community health requires the examination of all contacts of cases of syphilis and gonorrhea.

4.—Congenital syphilis is 95 percent preventable if adequate treatment is begun not later than the fifth month of pregnancy and persistently followed up.

5.—The Wassermann blood test is an essential part of a prenatal examination, because syphilis in pregnancy commonly shows no clinical symptoms.

6.—Reduction of congenital syphilis will result in the decline of stillborn and infant mortality rates.

7.—Prophylactic treatment of newborn babies' eyes has conquered ophthalmia neonatorum. Congenital syphilis can be conquered by treating syphilis in pregnancy.

8.—If adequate treatment is given continuously for at least one year, to patients with seronegative primary syphilis, cure can be obtained in 95 to 98 percent of all cases.

9.—Most cases of syphilis promptly become non-infectious under effective arsphenamine and heavy-metals treatment; but cases inadequately treated may again become infectious and a danger to contacts.

10.—Gonococcal cervico-vaginitis in girl children demands an inquiry into the possible infection of all members of the household.

11.—Because their symptoms are not always obvious, gonorrhea and syphilis are often spread by persons who are unaware of their infection.

12.—Both family and community would be best safeguarded by periodic general health examinations, which would include search for syphilis and gonorrhea.

AMERICAN SOCIAL HYGIENE ASSOCIATION.

New York, N. Y.

The Seminar

(Continued from Page 39)

there was a small pimple, at the hair line and about an inch to the right of the mid line of the neck. There was also some general tenderness of the tissues on this side of the neck and a couple of lymph nodes could be distinctly palpated, but not seen. The temperature was 103° F.

Thinking that the pimple was a small boil, I applied Antiphlogistine, and in two days the pimple discharged its contents leaving a punched-out ulcer. The man's temperature became normal and, feeling well, he went back to work; but the next day he was back at the dispensary because of chills. Rest in bed for two days again brought the temperature to normal; and again the patient got up and went swimming. Again he was back complaining of chills. Upon closer questioning regarding the pimple, the patient remembered having been bitten on the neck by a "deer fly."

Gradually the ulcer healed, but in the meantime the glands enlarged enough to be seen. From this time on until July 4 he had a very erratic temperature curve, going up to 105° F. and dropping to 99° in 24 hours.

Requirements: What is your tentative diagnosis, and why? What further information is needed for a positive diagnosis?

*Am. J. Digest. Dis. and Nutrition, Oct., 1936.

Progress in Pharmaceutical Chemistry

A FEW of the newest and clinically most interesting products introduced by our progressive advertisers are mentioned below, with a few words regarding their therapeutic uses.—Ed.

Abbott Laboratories, North Chicago, Ill.

Syrup Amdelate: Mandelic acid in palatable, efficient form.

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Cevitamic Acid: Crystalline vitamin C in standardized form.

Glucophylline Tablets: Coronary dilator and diuretic.

Pentothal Sodium: A powerful and brief acting barbiturate for intravenous use.

Oladol: Haliver oil fortified with natural vitamin D.

Bischoff, Ernst, Company, New York, N. Y.

Percol: Drop-dose cough relief.

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Reed & Carnrick, Jersey City, N. J.

Entacarb Tablets: Systemic alkalizer, enterically coated.

Entacarb Powder: For alkaline effect in the stomach.

Pancrobilin Tablets: Pancreas and bile, with mild laxative added.

Schering & Glatz, Inc., New York, N. Y.

Picochrome: New dye urinary antiseptic.

Spicer & Co., Glendale, Calif.

Neostannin: A combination of tin and protein.

Tilden Company, New Lebanon, N. Y.

Irotheron Tablets: Ferrous sulphate, buffered, quickly absorbed.

Ototheron: Solvent, antiseptic, anesthetic in aural canal.

Pulvalka: Systemic, local normalizer-absorbent-protective.

Dextrotheron Tablets: Convenient dextrose stimulant-food accessory.

Wilson Laboratories (The), Chicago, Ill.

Concentrated Gastric Mucin Granules: For peptic and duodenal ulcers.

Winthrop Chemical Company, Inc., New York, N. Y.

Stamyl: Stable pancreatic enzyme preparation.

Chovanol: For nonsurgical gallbladder diseases.

Prontilyn: Antistreptococcic. For oral administration.

Campolon: Antianemic—Brand of purified solution of liver.

THUMBNAIL THERAPEUTICS

Local Anesthesia in Obstetrics

LOCAL anesthesia is of value in obstetrics, especially in breech presentations, where the cooperation of the mother is needed to the very end.

Using a 10 cc. Luer-Lok syringe, raise a cutaneous wheal at the point of puncture, and then inject 150 cc. of 1-percent solution of procaine, containing 15 drops of 1:1,000 epinephrin solution, midway between the vaginal and rectal orifices, directing the needle by a finger in the vagina and using the ischial tuberosity as a landmark, injecting small amounts of the solution ahead of the needle until it reaches the pudendal nerve.—F. J. A. DILLER, M.D., in *Northwest Med.*, Apr., 1936.

Treatment of Acute Gonococcus Urethritis without Sick Days

ACUTE gonorrheal urethritis can be treated and cured without relieving the patient from his regular duties, and there will be less chance of complications, if urethral injections are delayed until the acute symptoms have subsided. It is necessary to have the patient's confidence, and he should be warned against supplementary treatments by others.—R. A. VILAR, Lieut., M. C., U. S. Navy, in *U. S. Nav. Med. Bull.*, July, 1936.

Cod-Liver Oil Ointments in Indolent Ulcers

EXCELLENT results have been obtained by treating varicose ulcers, ulcerations accompanying erythema induratum, and similar conditions with cod-liver oil ointments. The local application of vitamin A to wounds seems to stimulate epithelial growth.—DRS. J. R. DRIVER, G. W. BINKLEY, and M. SULLIVAN, Cleveland, O.

Gwathmey Anesthesia

IN giving the Gwathmey oil-ether rectal anesthesia, it is essential that escape of ether by the breath be minimized or controlled, so that the ether will accumulate in the blood stream in such concentration that the patient will be anesthetized.—JOHN S. LUNDY, M.D., in *Ill. M. J.*, Aug., 1936.

Hydrochloric Acid in Fractures

AFTER proper reduction or operation, with a good approximation of the fragments, the fracture patient should be put on a high calcium and vitamin diet, with 4 cc. of dilute 10-percent hydrochloric acid solution in a glass of milk three times a day. This combination favors the laying down of bone.—DRS. N. W. CORNELL and A. R. BERNHEIM, New York City.

Hypoparathyroidism

THE only treatment of value in hypoparathyroidism is a low-phosphorus diet, with large amounts of calcium lactate or chloride in solution, large doses of viosterol, and parathyroid extract injected intravenously.—DRS. R. H. FREYBERG, R. L. GRANT, and M. A. ROBB, Ann Arbor, Mich.

Endocrine Products in Sterility

IN view of the importance of the anterior pituitary hormone in the female sex cycle, treatment with extracts of this gland, in cases of sterility, would seem to be indicated. Stimulation of the pituitary by small doses of x-rays has also been advocated, although it is obviously fraught with some risk. Although ovarian hormones have been frequently advised in sterility, they are probably quite valueless. They may produce menstruation, but will probably not influence ovulation. Progestin, for similar reasons, is quite useless as a cure for sterility.—DR. T. N. A. JEFFCOATE, in *Brit. M. J.*, Feb. 23, 1935.

Treatment of Diabetes

IT is well to give insulin $\frac{1}{2}$ to 1 hour before the chief carbohydrate meal, because it is absorbed more slowly than the food, and both should be in the blood at the same time.

Treatment and diet must be individualized, and if this is done intelligently, the patient can live an active and useful life. Sometimes the dose of insulin can be reduced or even discontinued.

If the renal threshold for sugar is high (above 200 mg. per 100 cc.), treatment must be controlled by blood-sugar tests every 1 to 2 months.—DR. RUSSELL RICHARDSON, Univ. of Penna. Hosp., Philadelphia.

NEW BOOKS

Any book reviewed in these columns will be procured for our readers if the order, addressed to **CLINICAL MEDICINE AND SURGERY**, Medical & Dental Arts Bldg., Waukegan, Ill., is accompanied by a check for the published price of the book.

*Sir, he hath never fed of the dainties that are
bred in a book . . . his intellect is not
replenished.*—SHAKESPEARE.

Sloan: The Thyroid

THE THYROID. Surgery, Syndromes, Treatment. By E. P. Sloan, M.D. Edited by Members of the Sloan Clinic. And with a Foreword by Wm. Seaman Bainbridge, M.D. Springfield and Baltimore: Charles C Thomas. 1936. Price, \$10.00.

The author of this work had an immense personal experience with goiter, having seen more than 20,000 cases, of which about 15,000 were operated upon. He was, therefore, qualified to write with authority on diseases of the thyroid gland, and the fruits of his experience and study are embodied in these pages.

This is not an encyclopedia nor a massive systematic treatise, but a concise and practical summary of the modern knowledge of thyroid diseases and a simply written, all-around clinical reference book for surgeons, internists, general practitioners, radiologists, and all who are in any way interested in goiter. Full details of diagnosis, prognosis, operative technics, and after-care are given, reinforced with many unusually clear and helpful illustrations and several magnificent plates in colors. The bookwork is up to Thomas' usual high standards, and the bibliography and indexes are adequate.

No physician in active practice can fail to gain information of great and practical value from this book. It is indispensable to all surgeons who operate upon the thyroid gland.

Christian: Psychiatry for Practitioners

PSYCHIATRY FOR PRACTITIONERS. By Various Authors. Edited by Henry A. Christian, A.M., M.D., LL.D., Sc.D. (Hon.), etc. Reprinted from *Oxford Loose-Leaf Medicine*. New York: Oxford University Press. 1936. Price, \$6.50 (In Loose-Leaf form, \$10.00).

This is a reprint of Volume VII of the well-known "Oxford Medicine," and in bookwork and general format lives up to that fine tradition.

Realizing the growing need by general clinicians of a basic knowledge of the facts and connotations of mental disorders, the distinguished authors of this volume (among them such men as Ebaugh, of the University of

Colorado; Strecher, of the University of Pennsylvania; and White, of George Washington University and St. Elizabeth's Hospital) have undertaken to present, in a direct and logical manner, such information as will be of the greatest use to active practitioners of general medicine, rather than to medical students or psychiatrists; and their purpose appears to have been achieved. The text is singularly free from padding, and case reports are used as illustrations wherever required. Such subjects are dealt with as the psychiatry of childhood; mental deficiencies; psychopathic personalities; the psychoneuroses; and others.

It would seem that no active clinician can study these pages without becoming a more intelligent and successful minister to the immense number of patients who are suffering from more or less serious disorders of the mind or the emotions or both, which make life almost intolerable to many.

Schumann: Obstetrics

A TEXTBOOK OF OBSTETRICS. By Edward A. Schumann, A.B., M.D., F.A.C.S., Professor of Obstetrics, School of Medicine, University of Pennsylvania; Surgeon-in-Chief, Kensington Hospital for Women, etc. With 581 Illustrations on 497 Figures. Philadelphia and London: W. B. Saunders Company, Publishers. 1936. Price, \$6.50.

The author's object in preparing this work has been to present, to students and practitioners of medicine, the art and science of obstetrics as it is regarded at the present time. His experience, gained as a practitioner and teacher of obstetrics, has been drawn upon to present the various phases of this subject in as well balanced a form as possible. The mechanics of childbirth and its more common complications have been given great weight, while the more rare conditions are but briefly sketched.

Besides the general introduction, there are six main divisions, namely: pregnancy, labor, obstetric pathology, the pathology of labor, the accidents of labor, and operative obstetrics. The sections dealing with obstetric pathology, the pathology of labor and operative obstetrics are, in our opinion, the most valuable parts of the book. Although containing

nothing essentially new, yet the subjects dealt with are presented in a clear and concise way according to present-day concepts. This is especially noticeable in the chapters dealing with the toxemias of pregnancy and the maternal illnesses accidental to pregnancy.

In the chapter on injuries to the birth canal and in that dealing with forceps extraction, we agree with the author's view, that it is much better practice to employ forceps in primiparas only on indication and to substitute for their use intelligent expectation, combined with analgesia, and allow all labors to terminate spontaneously unless direct cause for intervention presents itself.

We consider this textbook an excellent one which fulfils the author's object. It is clear and concise, gives all essentials with commendable brevity, while omitting nothing of importance, and is not didactic. It is recommended to all clinicians who practice obstetrics. The bookwork is excellent and the volume is a handy one.

Stone: Bright's Disease and Arterial Hypertension

BRIGHT'S DISEASE AND ARTERIAL HYPERTENSION. By Willard J. Stone, B.Sc., M.D., F.A.C.P., Clinical Professor of Medicine, School of Medicine, University of Southern California, Los Angeles; Attending Physician to the Pasadena Hospital, Pasadena, California. Illustrated. Philadelphia and London: W. B. Saunders Company. 1936. Price, \$5.00.

The group of diseases included under the general caption of Bright's disease occupies the third place among the causes of death in the United States. If other conditions, in which Bright's disease may be a contributing factor, should be included, the incidence would probably be raised to second place among the causes of death. It is, therefore, evident that anything that throws better light on this group of diseases must be of vast interest to American physicians.

Dr. Stone's book is the result of twenty years' notations on the course and progress of patients with Bright's disease. He confesses with regret that many aspects of the subject still remain, despite a long tradition of learning, as indefinite and inconclusive as they were in Bright's time. On the other hand, there is a better knowledge and classification of these conditions, which, together with the clinical aspects of the group of diseases, form the thesis of the book.

The author divides acute Bright's disease into the hemorrhagic and degenerative types. Chronic Bright's disease is subdivided into the arteriosclerotic (with primary hypertension), hemorrhagic (with secondary hypertension), and degenerative (without hypertension). Discussion of these types, as well as the general clinical and laboratory data and tests, make up the twenty main chapters of the book. Chapter 21 is devoted to the details of a large amount of autopsy material.

There are few physicians in active practice who have not a more or less extensive experience of Bright's disease in its multifarious forms. Whether or not they may agree with Dr. Stone's views and deductions, they will find great interest, as well as instruction, from a perusal of his fine exposition of the subject. The book is easy to read. Most of the chapters have a summary of their contents at the end, which fixes in the mind the views presented. There are numerous illustrations and explanatory tables, as well as ample bibliographies.

Stedman: Medical Dictionary

A PRACTICAL MEDICAL DICTIONARY. By Thomas Lathrop Stedman, A.M., M.D., Editor of the "Twentieth Century Practice of Medicine," of the "Reference Handbook of the Medical Sciences," and of "The Nurse's Medical Lexicon." Formerly Editor of the Medical Record. Thirteenth, Revised Edition, with the New British Anatomical Nomenclature. Illustrated. Baltimore, Md.: William Wood and Company. 1936. Price, \$7.00.

Every physician must have an up-to-date medical dictionary, if he is to avoid embarrassment in professional conversation and confusion in reading the recent literature, as new words are being added every week.

Dr. Stedman is a medical lexicographer who knows his etymology thoroughly and has strong ideas about bastard derivations. When he disagrees with other authorities, he is likely to be right. His little article on medical etymology, which is a feature of this thirteenth edition, should be of immense value to most physicians in clarifying their knowledge of the technical words they use.

This new edition corresponds with the 1936 U.S. Pharmacopeia and National Formulary, and with the newest editions of other standard publications, and is, in all ways, as nearly up to the minute as such a work can be. The physician, medical student, or nurse who has this new "Stedman" will not go astray, and will find the many reference tables very useful. The book work is first-rate.

International Clinics

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest. By Leading Members of the Medical Profession Throughout the World. Edited by Louis Hamman, M.D. Volume III. Forty-Sixth Series, 1936. Philadelphia, Montreal, London: J. B. Lippincott Company. Price, \$3.00, each.

The September, 1936, issue of *International Clinics* contains seventeen contributions from American authors. In the surgical section

there are two well-written and excellently illustrated clinical papers, one on "Malignant Melanoma," by Dr. S. W. Becker, of Chicago, and one on "Pilonidal Sinus," by Dr. Mims Gage, of New Orleans.

Among the medical contributions, general practitioners will find the following papers of much interest: "Epidural Abscess with Paraplegia," by Drs. M. C. Pincoffs and L. P. Gundry, of Baltimore; "Adenopathy: A Discussion of the Differential Diagnosis between Hodgkin's Disease, Lymphosarcoma and Aleukemic Lymphadenosis," by Drs. I. W. Held and A. A. Goldbloom, of New York City; "Undulant Fever," by Dr. H. M. Winans, of Dallas; "Angina Pectoris," by Dr. J. Heyward Gibbs, of Columbia, S.C.; and "Clinical Studies in Circulatory Adjustments," by Dr. A. A. Goldbloom, of New York City.

For doctors in remote places, these, as well as the other varied clinical contributions, furnish an excellent means of becoming acquainted with what is going on in the large clinical centers.

Mathews: Biochemistry

PRINCIPLES OF BIOCHEMISTRY. By Albert P. Mathews, Andrew Carnegie Professor of Biochemistry, University of Cincinnati, Cincinnati, Ohio. Baltimore: William Wood & Company. 1936. Price, \$4.50.

In these days, it seems scarcely necessary to emphasize the importance of keeping as nearly up to date as possible in one's knowledge of biochemistry, which is taking a larger and larger part in our conceptions of disease.

In this volume, the author has endeavored to simplify and co-ordinate the general principles and basic facts of this difficult subject, so as to make them easier to grasp and remember. To this end, exercises and bibliographies have been omitted.

This book is no light summer reading, but the information it contains is part of the basic knowledge which should be readily available to every active and ambitious physician, and there is a place for it in every medical library.

Mattice: Chemical Laboratory Tests

CHEMICAL PROCEDURES FOR CLINICAL LABORATORIES. By Marjorie R. Mattice, A.B., Sc.M., Assistant Professor of Clinical Pathology, New York Post Graduate Medical School of Columbia University; Assistant Director of the Biochemical Laboratory, New York Post Graduate Hospital; Consultant Chemist, Reconstruction Hospital, New York City. Illustrated with 90 Engravings and 2 Colored Plates. Philadelphia: Lea & Febiger. 1936. Price, \$6.50.

This book is designed both for the physician who must interpret chemical data, and for the analyst. Contact with many students has fitted the author to appreciate their point of view and to foresee their difficulties. Without in any sense being elementary, the book is thoroughly comprehensible, and covers every phase of the chemical examination of

blood, urine, gastro-intestinal secretions, cerebrospinal fluid, effusions, and other body fluids. The appendix contains much material of general and practical value to both physicians and technicians, especially the latter, though the general clinician who does his own laboratory work will find it decidedly helpful. The bookwork is excellent and the index adequate.

Physician's Visiting List

THE MEDICAL RECORD VISITING LIST OR PHYSICIAN'S DIARY FOR 1937. Revised. Baltimore: William Wood & Company. Price, 30 patients, \$1.75; 60 patients, \$2.00; 90 patients, \$2.50.

The 1937 edition of this annually-issued physician's pocket book, with its sections for records of appointments, calls, consultations, obstetric engagements, financial transactions and other important data, is a worthy successor to those that have served the medical profession so well in the past.

In addition it has essential information for emergencies, with dose tables, etc. Every visiting practitioner needs such a helpful notebook.

Bortz: Diabetic Manual

A DIABETIC MANUAL. For Practitioners and Patients. By Edward L. Bortz, A.B., M.D., F.A.C.P., Associate Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, etc. With a Foreword by George Morris Piersol, B.S., M.D., F.A.C.P. Illustrated. Philadelphia: F. A. Davis Company. 1936. Price \$2.00; \$5.00 for three.

The diabetic patients who get along well and live out their lives in comparative comfort are the ones who have learned how to take care of themselves, under a doctor's supervision; and every physician who is handling these cases should be familiar with one or more of the manuals which furnish these patients with the necessary instruction, and should prescribe or furnish the one he likes best.

This well-made little book, with its directions for taking insulin (including comments on the new protamine-insulin); its tables of food values and menu suggestions; its glossary of technical terms; and its suggestions for the care of the feet, etc., seems well suited to its intended purpose and may be recommended with confidence.

Cameron: Recent Advances in Endocrinology

RECENT ADVANCES IN ENDOCRINOLOGY. By A. T. Cameron, M.A., D.Sc. (Edin.), F.I.C., F.R.S.C., Professor of Biochemistry, Faculty of Medicine, University of Manitoba; Biochemist, Winnipeg General Hospital. Third Edition. With 65 Figures, Including Three Plates. Philadelphia: P. Blakiston's Son & Company, Inc. 1936. Price, \$5.00.

To the average student of medical biology, the endocrine field presents a chaotic aspect.

It is unquestionable that many observed phenomena are associated with the normal or abnormal secretions of certain glands; others can only be accounted for by the absence of such secretions. There appears also, undoubtedly, to be an interrelation between the glandular secretions and, moreover, these have been shown to be associated with the processes of metabolism. But, on the other hand, attempts to apply the knowledge gained by observation and experiment to practical therapeutics have often been failures. Great as have been the results of research and the accumulation of experimental facts and deductions, we are, seemingly, still far removed from a precise application of such knowledge to the remedying of human ills.

Professor Cameron's book is an excellent scientific approach to a better knowledge of the nature and functions of the internal secretions. He regards the subject from the biochemical point of view—the truth depending ultimately upon the isolation of the different endocrine principles in pure crystalline form so that their physiologic and pharmacologic properties may be ascertained accurately. While this is indeed the main tendency of all present-day research, it is safe to say that we are yet far from the goal. However, such progress as has been made is clearly shown in the present book, as well as such applications in clinical medicine as are pertinent. In this third edition the main advances are those in connection with the thymus and pineal glands, with the compounds of insulin, with the multiform pituitary secretions, and

with the estrogenic compounds and gonadal secretory activities. There is a good chapter on endocrine interrelationships and antagonisms.

For the endocrinologist especially, but also for the medical man who is interested in all scientific progress on subjects directly or indirectly associated with the art and practice of medicine, this book can be confidentially recommended as an excellent exposition of a somewhat bewildering subject.

Power: British Masters of Medicine

BRITISH MASTERS OF MEDICINE. Edited by Sir D'Arcy Power, K.B.E., F.R.C.S., F.S.A., Consulting Surgeon and Archivist to St. Bartholomew's Hospital; Honorary Librarian, Royal College of Surgeons of England. Baltimore: William Wood and Company. 1936. Price, \$3.00.

This is a collection of biographies of celebrated British medical men, commencing with William Harvey and ending with Ernest H. Starling. The essays, written by various authors, appeared first during 1934-1935 in a British medical publication, and are now issued in book form under the editorship of Sir D'Arcy Power.

The volume will be appreciated by all literary physicians, not only because accounts of the lives of the masters of our art are interesting and incentives to achievements, but because many of the subjects, such as Harvey, Bright, Addison, Lister, and Osler, are of world-wide fame.

New Books Received

The following books have been received in this office and will be reviewed in our pages as rapidly as possible.

ATLAS OF CONGENITAL CARDIAC DISEASE. By Maude E. Abbott, B.A., M.D., F.R.C.P. (Canada). New York: The American Heart Association. 1936. Price, \$5.50.

A TEXTBOOK OF MEDICINE. By Charles Phillips Emerson, M.D. Philadelphia: J. B. Lippincott Company. 1936. Price, \$8.00.

INTERNATIONAL CLINICS. Edited by Louis Hamman, M.D. Vol. IV, 46th Series, December, 1936. Philadelphia: J. B. Lippincott Company. 1936. Price \$3.00 per current year (not sold separately), \$5.00 per copy, back years.

DISEASES OF THE CORONARY ARTERIES AND CARDIAC PAIN. Edited by Robert L. Levy, M.D. New York: The Macmillan Company. 1936. Price, \$6.00.

SKIN DISEASES IN CHILDREN. By George M. MacKee, M.D., and Anthony C. Cipollaro, M.D. New York: Paul B. Hoeber, Inc. 1936.

MODERN TREATMENT AND FORMULARY. By Edward A. Mullen, P.D., M.D., F.R.C.S. Foreword by Horatio C. Wood, Jr.

Philadelphia: F. A. Davis Company. 1936. Price, \$5.00.

LECTURES ON EMBOLISM AND OTHER SURGICAL SUBJECTS. By Gunnar Nyström, M.D. The Abraham Flexner Lectures, Series Number Four. Published for Vanderbilt University. Baltimore: The Williams & Wilkins Company. 1936. Price, \$3.00.

THE ASTROLOGY OF PERSONALITY. A Re-formulation of Astrological Concepts and Ideals, in Terms of Contemporary Psychology and Philosophy. By Dane Rudhyar. New York: Lucis Publishing Company. 1936. Price, \$3.50.

THE DEVELOPMENT OF MODERN MEDICINE. An Interpretation of the Social and Scientific Factors Involved. By Richard Harrison Shryock. Philadelphia: University of Pennsylvania Press. 1936. Price, \$4.00.

SEX AND PERSONALITY. Studies in Masculinity and Femininity. By Lewis M. Terman and Catharine Cox Miles. New York and London: McGraw-Hill Book Company, Inc. 1936. Price, \$4.50.

MEDICAL NEWS



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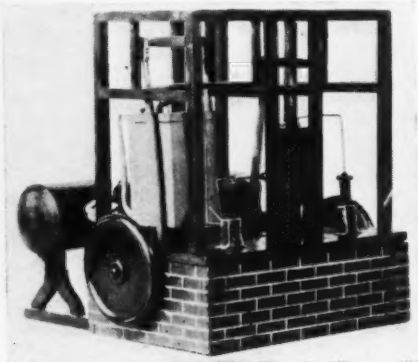
Dr. Fitz-Patrick Passes

COL. Gilbert Fitz-Patrick, Medical Reserve Corps, U.S. Army, of Chicago, obstetrician, gynecologist, medical educator, and especially prominent in medico-military affairs, passed to his rest on the night of November 11-12, 1936, following strenuous activities on Armistice Day, which probably were a factor in hastening his death.

Dr. Fitz-Patrick was born in Ohio in 1873; was graduated from the Chicago Homeopathic Medical College in 1896; did extensive graduate work abroad and in the United States; was professor of obstetrics for 17 years at Hahnemann Medical College, Chicago; wrote a number of monographs and articles in his specialty; and at the time of his passing was obstetrician at several Chicago hospitals, a member of the Illinois State Medical Examining Board, and chairman of the Illinois Cancer Commission. He will be especially missed where Medical Reserve officers congregate, for he was an enthusiast in the matter of military preparedness and very eager in all such activities and in the American Legion.

Social Hygiene Day

IT is planned to observe Social Hygiene Day on Feb. 3, 1937. On that day, meetings will be held and radio broadcasts arranged, emphasizing the importance of the control and prevention of syphilis and gonorrhea. Physicians who desire to assist in this important work by speaking before local lay groups, can obtain notes for a talk and other information by writing to the American Social Hygiene Association, 50 West 50th St., New York City.



Courtesy of Southern Medical Journal.

Dr. Gorrie's Ice Machine

THE picture above shows the original model of Dr. Gorrie's ice machine (see *Editorial Section* of this issue), submitted with his application for patent No. 8080, May 6, 1851. This model was made of wood and lead and did not operate. It is now in the National Museum, Washington, D.C.

Centenary of Army Medical Library

THE centennial anniversary of the establishment of the U. S. Army Medical Library (often called the Surgeon General's Library), the oldest institution of its kind in the United States and the greatest in the world, was formally celebrated at Washington, D. C., November 16, 1936. The guest of honor was Sir Humphrey Davy Rolleston, who was physician extraordinary to King George V of England, and who is now, among other things, vice-president of the Voluntary Euthanasia Society of England.

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| <p>A-596 The Pneumonic Lung. Its Physical Signs and Pathology. The Denver Chemical Mfg. Co.</p> <p>A-610 Bischoff Pharmaceutical Specialties. Ernst Bischoff Co., Inc.</p> <p>A-611 Vera Perles of Sandalwood Compound. The Paul Plessner Co.</p> <p>A-612 Taurocol. The Paul Plessner Co.</p> <p>A-613 Specific Urethritis—Gonosan "Riedel." Riedel & Co., Inc.</p> <p>A-746 Dr. Weirick's Sanitarium. Dr. G. A. Weirick.</p> <p>A-752 Fourth Edition of Diagnosis of Genito-Urinary Disease and Syphilis. Od Peacock Sultan Co.</p> <p>A-794 <i>Journal of Intravenous Therapy</i>. Loeser Laboratory.</p> <p>A-799 Elixir Bromaurate in the Treatment of Whooping Cough and other Cough Disorders. Report of Cases. (Booklet.) Gold Pharmacal Co.</p> <p>A-811 Edwenil; A Polyvalent Antibacterial Agent for use in Endotoxic Infections. Spicer & Co., Inc.</p> <p>A-818 Menocrin. The Harrower Lab., Inc.</p> <p>A-824 Chondroitin; for treatment of Idiopathic Headache. The Wilson Labs.</p> <p>A-832 Endothylin for use in Hyperthyroidism, etc. The Harrower Lab., Inc.</p> <p>A-836 A Few Notes Regarding Psychoanalysis. Fellows Medical Mfg. Co.</p> <p>A-838 What Constitutes an Ideal Urinary Antiseptic? Cobbe Pharmaceutical Co.</p> <p>A-843 Cough — Its Symptomatic Treatment. Martin H. Smith Co.</p> <p>A-844 The Therapeutic Value of Chemical Foods. Fellows Medical Mfg. Co.</p> <p>A-851 Feeding Diabetic Patients. Knox Gelatine Laboratories.</p> | <p>A-853 Technic of the Injection Treatment of Herma. Loeser Laboratory.</p> <p>A-858 Menstrual Regulation by Symptomatic Treatment. Martin H. Smith Co.</p> <p>A-860 Hyperol. A Utero-Ovarian Tonic and Corrective. Purdue Frederick Co.</p> <p>A-871 Gray's Glycerine Tonic Comp. Purdue Frederick Co.</p> <p>A-875 Feeding Sick Patients. Knox Gelatine Laboratories.</p> <p>A-880 Danish Ointment. Reprint J. A. M. A. Acne Rosacea. The Original 24-Hour Treatment for Scabies. The Tilden Co.</p> <p>A-889 Haimased. Reprint from <i>The Canadian Associated Journal</i>. The Safe Sulphocyanate in High Blood Pressure. The Tilden Company.</p> <p>A-890 Clinical Guide for Female Sex Hormone Therapy. Schering Corp.</p> <p>A-892 An Outstanding Advance in Ulcer Therapy. The Wilson Labs.</p> <p>A-893 Sex Hormones Physiologically Standardized for Injection. Endo Products, Inc.</p> <p>A-897 Reducing Diets and Recipes. Knox Gelatine Laboratories.</p> <p>A-906 Dermatocol for the Treatment of Skin Diseases Due to Fungi. Ernst Bischoff Company.</p> <p>A-907 Relation of Metabolism to Rheumatism and Rheumatoid Arthritis. Data and Clinical Notes. Mellier Drug Co.</p> <p>A-909 Colloidal Mercury Sulphide-Hille. Hille Laboratories.</p> <p>A-910 Ludozan—The Longer Lasting Antacid. Schering Corporation.</p> <p>A-913 Laboratory Tests to Determine the Germicidal Efficiency of the Vapors from the Cresols of Coal Tar. Vapo-Cresolene Company.</p> |
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- A-914 Clinical Comments and Therapeutic Suggestions. Campho-Phenique Co.
- A-916 Foot Weakness and Correction for the Physician. The Scholl Mfg. Co., Inc.
- A-920 Diadermic Therapy. Numotizine, Inc.
- A-923 Chart of the Inguinal Region, with Technic for the Treatment of Hernia by Injection. The Farnsworth Labs.
- A-928 Glucophylline. Abbott Laboratories.
- A-929 Chappel's Intramuscular Liver Concentrate. Chappel Bros., Inc.
- A-933 Alphacatalyst. The Intravenous Treatment for Cancer. The Farnsworth Labs.
- A-936 Endo-Virosterone. Endo Products, Inc.
- A-942 Taurocol Compound with Digestive Ferments. The Paul Plessner Co.
- A-945 Treatment of Ring Worm and Epidermophytosis ("Athlete's Foot") with Phenylmercuric Nitrate Ointment. Associated Physicians Labs.
- A-949 Protecting the Expectant Mother. Corn Products Sales Co.
- A-950 Moods Chemically Produced. Wm. R. Warner & Co., Inc.
- A-952 Treatment of Arthritis with Colloidal Sulphur. The Doak Co.
- A-955 Oreton and Oreton-B—Synthetic Male Sex Hormones. Schering Corp.
- A-957 Salicylates Resumé of Therapy. Malinckrodt Chemical Wks.
- A-958 Karo Syrup for Infant Feeding. Corn Products Sales Co.
- A-960 Appliances for the Mechanical Retention of Hernia. Brooks Appliance Co.
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- A-964 Chloral Hydrate, The Mercurials, and Iodine Resumé of Therapy. Malinckrodt Chemical Works.
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